

The
Red Book
of Building Material



United States Gypsum Company
300 West Adams Street, Chicago

UNITED STATES GYPSUM COMPANY

GENERAL OFFICES

300 West Adams Street, CHICAGO, ILL.

SALES OFFICES

Atlanta, Ga., 1510 Candler Bldg.
 Baltimore, Md., 402 Keyser Bldg.
 Buffalo, N. Y., 636 Ellicott Square Bldg.
 Charlestown, Mass. (Boston Office), Mystic Wharf
 Cincinnati, Ohio, 1009 Atlas Bank Bldg.
 Cleveland, Ohio, 1514 Builders' Exchange Bldg.
 Dallas, Tex., 1310 Santa Fe Bldg.
 Denver, Colo., Continental Oil Bldg.
 Detroit, Mich., 1327 Majestic Bldg.
 Indianapolis, Ind., 417 Architects' Bldg.
 Kansas City, Mo., 505-6-7 Fairfax Bldg.

Los Angeles, Calif., 507 Architects Bldg., 5th St. at Figueroa
 Memphis, Tenn., Bank of Commerce Bldg.
 Milwaukee, Wis., Oregon and Grove Sts.
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 New York City, N. Y., 220 E. 42nd St.
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 Washington, D. C., 604 Lenox Bldg., 16th and L St., N. W.

Toronto, Ont., Canada, 159 Bay St.

MILLS, MINES, QUARRIES AND WAREHOUSES—See Map

- | | | | |
|-------------------------|-----------------------------|-----------------------------------|---------------------------|
| 1. Alabaster, Mich. | 13. Falls Village, Conn. | 25. Jeannette, Pa. | 36. Philadelphia, Pa. |
| 2. Amanda Park, Calif. | 14. Eldorado, Okla. | 26. Lancaster, Ohio | 37. Piedmont, S. D. |
| 3. Arden, Nev. | 15. Farnams, Mass. | 27. Laramie, Wyo. | 38. Plasterco, Va. |
| 4. Blue Rapids, Kan. | 16. Fort Dodge, Iowa | 28. Los Angeles, Calif. | 39. Portland, Ore. |
| 5. Boston, Mass. | 17. Genoa, Ohio | 29. Loveland, Colo. | 40. Sacramento, Calif. |
| 6. Bronx, New York City | 18. Great Barrington, Mass. | 30. Midland, Calif. | 41. San Francisco, Calif. |
| 7. Buffalo, N. Y. | 19. Grand Rapids, Mich. | 31. Milwaukee, Wis. | 42. Seattle, Wash. |
| 8. Chicago, Ill. | 20. Gypsum, Ohio | 32. New Brighton, S. I.,
N. Y. | 43. Southard, Okla. |
| 9. Cleveland, Ohio | 21. Harrison, N. J. | 33. North Kansas City, Mo. | 44. Sweetwater, Tex. |
| 10. Cordova, Ill. | 22. Heath, Mont. | 34. Oakfield, N. Y. | 45. Warren, Ohio |
| 11. Detroit, Mich. | 23. Hillsboro, N. B. | 35. Oakland, Calif. | 46. Wentworth, N. S. |
| 12. East Chicago, Ind. | 24. Hollywood, Calif. | | 47. Windsor, N. S. |

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PRODUCTS DESCRIBED IN OTHER CATALOGUES

See Sweet's Manufacturers' Index for:

- | | |
|---|---|
| (1) Econo Expanded Metal. | (3) Chromite Sheet Metal Wall Tile. |
| (2) Sheetrock—Pyrofill; Marks T System of Roof Construction; Reinforced Roof Tile; Monolithic Floors and Roofs; Pyrobar Partition and Furring Tile; Pyrobar Beam and Column Fireproofing. | (4) Insulation Products. |
| | (5) Architectural Acoustics, Noise Abatement and Sound Control. |
| | (6) U. S. G. Paint Products. |

UNITED STATES GYPSUM COMPANY

GENERAL COMMODITIES

Wall Plasters, Plaster Finishes, Lime, Exterior Stucco, Metal Lath, Gypsum Lath, Gypsum Wallboard and Sheathing Board

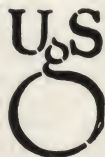
Experience

The UNITED STATES GYPSUM COMPANY is a pioneer in the gypsum industry in America. For more than twenty-eight years, the company—through its laboratories, experimental departments and field investigations—has closely studied the requirements of the building industry. Its formulae and mechanical equipment have been painstakingly designed to adapt each of its gypsum and other products to meet comprehensively these requirements.

Manufacturing and Distributing Facilities

The superiority of U.S.G. products is based upon high grade raw material, perfected processes of manufacture and one control from mining to shipping.

The forty-seven mines, milles and warehouses, strategically located throughout the United States, assure exceptional national distribution facilities and a product specially manufactured to fulfill variable local climatic conditions. The map below shows the location of the forty-seven U.S.G. centers and visualizes these important service facilities. In Canada, these commodities are sold exclusively by the Canadian Gypsum Company, Ltd.



TRADE-MARK

Sales and Service Facilities

The twenty-two sales offices in the important building centers guarantee adequate service to architects.

Complete Diversified Line of Products

Wherever gypsum is adapted to building uses there is a U.S.G. product specially designed to fulfill the particular requirement.

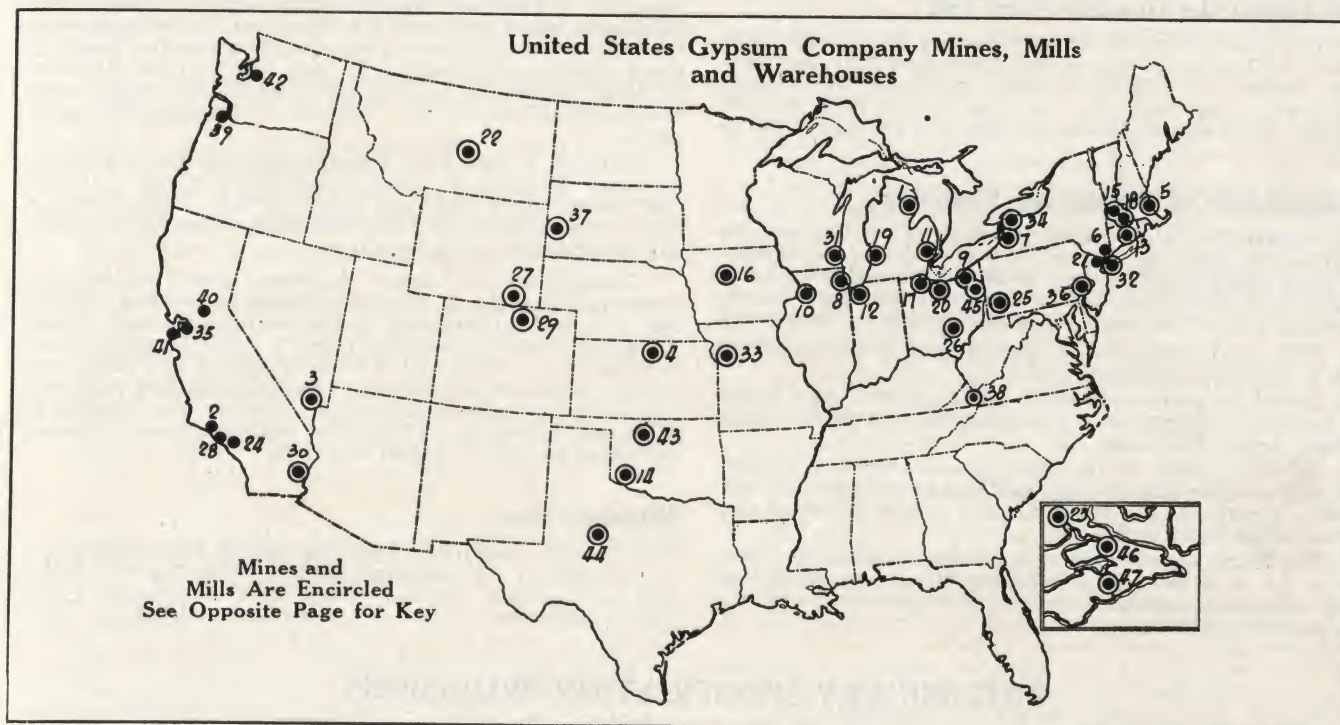
The broad scope of the company's gypsum and other products is indicated by the Products Index.

The Trade-mark

Products bearing the trade-mark of the UNITED STATES GYPSUM COMPANY are safeguarded against imperfections. They are rigidly inspected by experts at every stage of production, from the selection of the raw materials to the shipment of the finished products.

Any variation from the highest U.S.G. Standard means rejection.

This rigid maintenance of quality over a long period of years has established the name and trade-mark of the UNITED STATES GYPSUM COMPANY as synonymous with the highest standard of excellence in building materials.



GYPSUM—GENERAL TECHNICAL DATA

Gypsum—Chemically, Gypsum is hydrous calcium sulphate $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$. It is a widely distributed mineral found in rock formation. The rock gypsum is crushed, ground and then calcined, which drives off a part of the molecular water, forming the hemi-hydrate or plaster of paris. This product, when mixed with water, recrystallizes or sets.

Fireproof—The superior qualities of gypsum as a fire-proof building material have been definitely established by numerous tests made by the Underwriters' Laboratories, Inc., The Bureau of Standards, Columbia University, and by the

bureau of buildings in many of the larger cities. (Authentic test data furnished on request.)

The temperature on the unexposed side of the gypsum slab cannot exceed 212°F . while there is any water of crystallization in the gypsum. This is due to the fact that the water of crystallization in the gypsum must be vaporized during the application of fire to it, and as the gypsum slowly calcines, the cellular structure fills with steam. It is this barrier of calcined material which stubbornly resists the progress of the fire.

STANDARD X PLASTERING SYSTEM

(Trouble-free Plastering)

Introductory

Through its twenty-eight years' experience in the manufacture and sale of lathing and plastering materials, the UNITED STATES GYPSUM COMPANY has had forcibly impressed upon it the fact that unsatisfactory plaster work is usually the result of thinness ("skimping") of plaster coats, oversanding of plaster, or both. Exhaustive investigation has disclosed that these difficulties are eliminated with the Standard X Plastering System.

As a result, the UNITED STATES GYPSUM COMPANY has purchased the patents, good will and the sole privilege of manufacturing and marketing the Standard X Plastering System. The purchase was made only after an investigation of some hundreds of buildings in which Standard X had been used, after consultation with architects, plastering contractors and building owners, and after extensive laboratory tests.

The Standard X System has been extensively used in Detroit and other cities for more than five years. It has been used in residences ranging in cost from \$10,000 to \$1,000,000, in apartment buildings and in business buildings. Owners, architects and plastering contractors have, without modification, declared it to be the solution of the plastering problem where trouble-free wall and ceiling finishes are sought.

Has Passed the One-hour Fire Test

This system has successfully withstood the Standard One-hour Fire Test in accordance with specifications of the American Society for Testing Materials, conducted at Columbia University, New York City, on June 20 and July 18, 1929. A copy of the signed abstract covering this test report will be furnished on request.

Requirements of Satisfactory Plastering

A satisfactory plastering job obviously is one that provides satisfactory plastering service, and that minimizes ordinary wall and ceiling finish defects. A satisfactory plastering job is composed of five factors—good construction, lath, plaster, workmanship, and an adequately controlled system of installation.

First, good construction eliminates many plastering defects due to settlement, shrinkage, etc.

Second, to provide maximum service, the lath used should be fireproof, verminproof, non-deteriorating and should provide a tight bond with plaster.

Third, an ideal plaster must possess structural strength to resist ordinary abuses to which it may be subjected. It must possess appreciable fire resistance, and it must permit of ease of preparation and application.

The fourth factor required to produce a satisfactory plastering job is workmanship—necessary precautions of erection and application; precautions against adulteration; and full grounds for plaster.

With the single exception of "good construction," all the factors just mentioned, including a "controlled system of installation," the Standard X Plastering System adequately provides, as exemplified in the following six paragraphs.

Standard X System—Description

General—The Standard X Plastering System is formed of Standard X Lath, Standard X Metal Fabric, Standard X Base Coat and UNITED STATES GYPSUM COMPANY Finish Plaster. It provides all the necessary requisites for a satisfactory plastering job—lath, quality of plaster, assured thickness of plaster, and adequate joint reinforcing. It further provides more fire protection and more insulation than does the ordinary lath and plaster wall or ceiling.

Standard X Lath—Standard X Lath is a special gypsum lath $\frac{3}{8}$ in. thick, 16 in. wide and 48 in. long, finished on the back with a moisture-resisting fiber of a distinctive red color. It is shipped in bundles (a patented feature) to prevent injury. Standard X Lath is nailed and fitted with the ease of wood. It is fireproof, verminproof and non-deteriorating. Plaster, according to authoritative tests, bonds more tightly to it than to any other type of lath. In short, all the qualities necessary for a satisfactory lath are found in Standard X Lath.

Standard X Metal Fabric—Standard X Metal Fabrics, applied over all joints and corner angles after Standard X Lath has been erected, are composed of strips of expanded galvanized metal 3 in. wide, and made with a patented selvedge edge. The fabrics are easily applied. They assure adequate thickness of base coat, a very important factor.

Standard X Base Coat—Standard X Base Coat is a gypsum plaster scientifically compounded for use as part of the Standard X Plastering System. It is entirely factory-mixed. Nothing is added to Standard X Base Coat, before application, but water. This base coat plaster is exceptionally plastic. It bonds tightly with Standard X Lath, and over the Standard X Metal Fabric, to form a hard, dense, unit plaster construction that will be more resistive to cracking than other plasters.

Standard X Base Coat is much more resistive to fire than an equal thickness of ordinary sand-mixed plaster. It also has greater tensile and compressive strength, and provides a much more durable wall and ceiling finish. Authentic test data will be furnished on application.

Installation—To assure maximum good workmanship where the Standard X Plastering System is installed, installation is by licensed plastering contractors only. In each locality the UNITED STATES GYPSUM COMPANY issues licenses for the erection of the Standard X Plastering System to reliable contractors, who bind themselves to install the Standard X System according to complete specifications. Further, the Standard X Plastering System is sold only by dealers to whom licenses are issued because of known reliability.

Moderate Cost

Although Standard X Plastering System is a unique product and each of the component parts is of the highest quality, it is not expensive. Its cost is such that it is adaptable to the small home as well as the most pretentious building.

PRELIMINARY SPECIFICATION PROVISIONS

Note: The following provisions should be made in the proper specification divisions to assure the best installation of Standard X Plastering System.

(1) Carpentry Work

(1a) **Furring**—All masonry surfaces shall be furred.

(1b) **Framework**—All studding, joists and furring shall be set plumb, level and true, and where possible, spaced accurately on 12-in. or 16-in. centers.

(1c) **Bracing**—Place horizontal 2x4-in. bracing on line with headers at all openings for doors and arches and at headers and sills for all window openings. Bracing shall extend from

the stud to which headers and sills are attached to the next stud, driven tight and securely nailed.

(1d) **Backing**—Where backing plates are necessary in framework provide 2x4-in. studding instead of the usual $\frac{3}{8}$ -in. boards.

(1e) **Grounds**—All grounds shall be standard $\frac{7}{8}$ in. thick (face of stud to face of finished plaster).

(2) Electrical Construction

(2a) **Outlet Boxes**—All outlet boxes, etc., shall be accurately set with faces $\frac{7}{8}$ in. in front of the studding and joist line (flush with face of Standard X Plaster when applied).

STANDARD X PLASTERING SYSTEM—SPECIFICATIONS

Note: Notes are explanatory or advisory only and should not be included in the specifications.

Note: For items such as ornamental plaster work, etc., not included here, see Master Specifications, page 16.

(1) Work Included

The following shall be lathed and plastered with Standard X Plastering System.

Note: List and locate here all work covered by this contract and after each item note the finish, whether "trowel," "sand float," "Oriental Interior floated or textured." See pages 14 to 16.

(2) Examination

This Contractor shall examine all framing, grounds and provisions for electrical construction and other equipment provisions and shall report to the architect in writing any defects which will detrimentally affect the installation of Standard X Plastering System. The starting of work without such notification will be construed as acceptance of the building construction.

(3) General

All materials shall be as made by the UNITED STATES GYPSUM COMPANY. Installation shall be made only by an approved contractor, licensed by the UNITED STATES GYPSUM COMPANY. All workmanship shall be of the highest character.

(4) Materials

(4a) Lath—Standard X Lath ($\frac{3}{8}$ x 16 x 48 in.).

(4b) Metal Fabric—Standard X Galvanized Metal Angle Fabric (internal angle—2 x 2 in. x 48 in.) and Standard X Galvanized Flat Metal Fabric (3 x 48 in.).

(4c) Metal Corner Beads—Standard X Galvanized Expanded Metal Corner Beads.

(4d) Nails—Nails for application of Standard X Lath shall be Standard X Lath Nails (blued—1 $\frac{1}{4}$ in. x 11 gauge— $\frac{1}{2}$ in. very thin heads).

Nails for the application of metal fabrics shall be 2 in. finishing nails, driven and bent over.

(4e) Metal Lath—Red Top Diamond Mesh [Painted] [Galvanized] [Copper Bearing] [Armco Ingot Iron].

Note: Used on extremely curved surfaces in lieu of Standard X Lath.

Note: See pages 8, 9 and 10 for complete data on U.S.G. Metal Lath and Accessories.

(4f) Base Coat—Standard X Base Coat.

(4g) Finish Coat.

Note: Specify Red Top Trowel Finish, Oriental Interior Finish, Gypsum Prepared Finish, or Red Top Gauging Plaster or Keene's Cement with Lime, as described on pages 13, 14 and 15.

Note: If more than one finishing material is required, specify each separately under subheads "Trowel," "Sand Float," "Oriental Interior," etc.

(5) Lathing

(5a) Application of Standard X Lath—Cover all walls, ceilings and partitions, so specified, with Standard X Lath.

Place lath with trade-mark side against the studs, furring or joists. Break joints on studding, furring and joists. Perpendicular joints shall not occur on the opposite sides of the same stud. Boards shall be fitted tightly together at all angles.

In cutting—first score the lath with a pointed hatchet or knife and then break over a straightedge. Lath with chopped edges shall not be used.

Each full size lath (16 x 48 in.) shall be nailed to the bearings with ten (10) Standard X Nails—three (3) nails along each 16-in. edge and one (1) nail at each longitudinal edge at all intervening bearings. Nails shall be kept at least $\frac{3}{8}$ in. and not more than $\frac{3}{4}$ in. from edges of board. Drive nails home flush, without breaking the lath surface. Nails shall be placed only around edges of lath (not in the field) except when lath is applied over curved surfaces.

All holes through lath for outlet boxes, etc., shall be cut and trimmed, clean and true, to fit snugly around opening.

(5b) Application of Metal Lath—Lath all extremely curved surfaces with metal lath substantially secured with $\frac{7}{8}$ -in. lathing staples or nails driven and bent to hook over lath.

Note: Omit if not required.

(5c) Application of Standard X Metal Fabrics and Corner Beads—Apply angle fabric in all internal angles, butting ends so as to make a continuous reinforcement before applying fabric over joints.

Apply flat metal fabric over all lath joints and nail heads, centering the fabric over the joint. Horizontal and continuous joints shall first be covered, using the 48-in. long fabric, then cover the short or end joints along studs or joists with 12-in. long fabric, obtained by cutting the 48-in. strips into quarters.

All openings at doors, windows, arches, etc., shall be reinforced diagonally at each corner with two (2) 3 x 12-in. pieces of flat fabric.

All 48-in. strips shall be secured with at least four (4) nails. Fabric shall be stretched tight with all edges flat. Do not lap fabric. Apply fabrics with bow outward.

All external corners shall be reinforced for their full height or length with Standard X Corner Beads securely nailed over the Standard X Lath.

(6) Plastering

(6a) General—Use only clean water, free from alkali and impurities. Keep tools clean. Do not wash tools in mixing water.

Do not mix more material than can be handled easily in about one (1) hour.

Do not mix one batch with another, and never retemper Standard X Base Coat.

Clean the mixing box after each batch.

For best results in browning, rodding, darbying, and finishing, apply Standard X Base Coat in two coats. Scratch the first coat and allow it to set and partly dry before applying the brown coat.

During summer months all openings in building should be screened with cloth to prevent plaster drying out before it has set. Should white or chalky spots appear, spray with clean water.

In winter keep plaster from freezing. After plaster has set and become hard, allow free circulation of air so it will dry quickly. If plastering is done in cold, damp, or rainy weather, provide artificial means for drying after plaster has set. If artificial heat is used, care must be taken to prevent overheating of plaster surfaces.

(6b) Application of Standard X Base Coat—The base coat shall be used neat (water only added).

Hoe plaster into the water. Let it soak from 10 to 15 minutes and mix thoroughly—thin at first, then add sufficient plaster to obtain the proper consistency.

Apply Standard X Base Coat over the surface of Standard X Lath (and metal lath applied over curved surfaces) in the usual manner, embedding the metal fabrics, filling out plumb and level to grounds. Leave the surface of the base coat raked or broomed to give a good key for the finish coat.

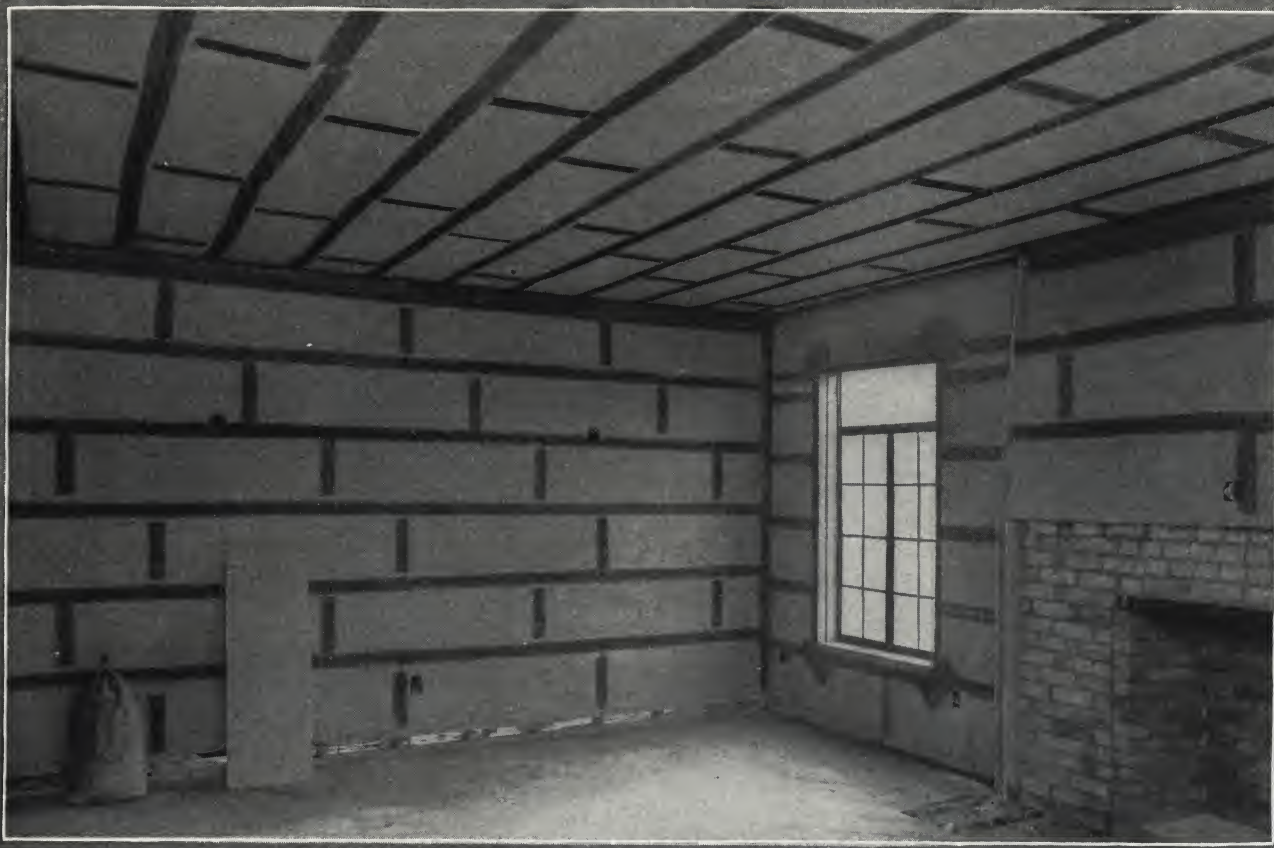
(6c) Application of Finish Coat—Over the Standard X Base Coat shall be applied the finish coat specified.

Application shall be in strict accordance with the manufacturer's standard specifications. Finished surfaces shall be brought to a true plane, finished in a manner to meet the architect's approval.

ESTIMATED QUANTITY OF STANDARD X MATERIALS FOR 100 SQUARE YARDS

Based on Actual Area to be Covered After Openings Have Been Deducted

Grounds, in.	Lath, sq. ft.	Nails, lbs.	Base coat	Flat fabric	Angle fabric	Corner bead
$\frac{3}{4}$	900	12 $\frac{1}{2}$	20-23 (100 lb. bags)	752 lin. ft. (1 bdl.)	180 lin. ft. (1 bdl.)	As indicated
$\frac{7}{8}$	900	12 $\frac{1}{2}$	26-29 (100 lb. bags)	752 lin. ft. (1 bdl.)	180 lin. ft. (1 bdl.)	on plans



Standard X Lath and Standard X Metals in Place Ready for Standard X Base Coat Plaster

Note method of reinforcing all openings, fabric never lapped

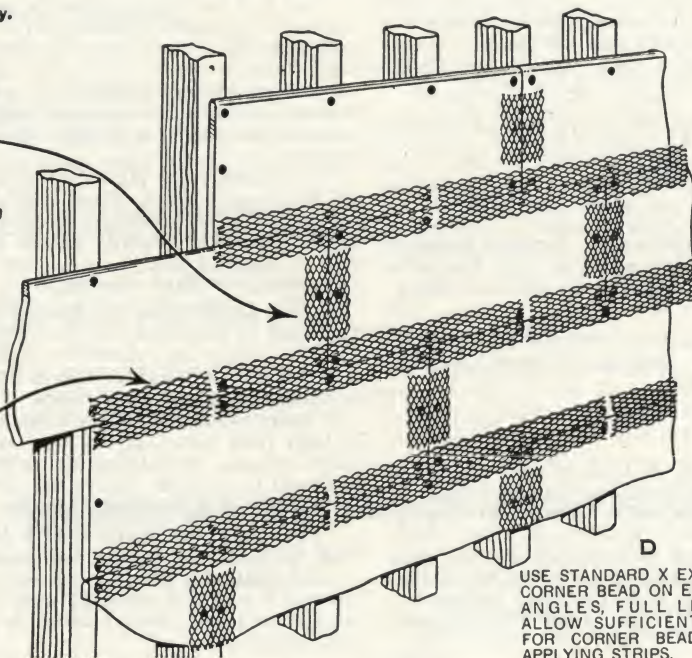
NOTE: Stretch all fabrics tightly.

THE STANDARD X FABRICS THAT RUN WITH JOISTS AND STUDS SHOULD BE NAILED ON LAST. USE TWO 2" FINISHING NAILS TO EACH 12" STRIP.

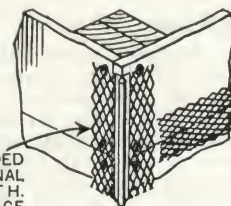
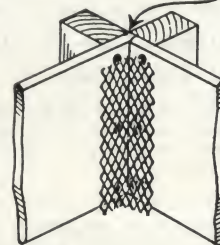


APPLY FABRICS WITH BOW OUTWARD.

USE FOUR 2" FINISHING NAILS TO EACH 48" STRIP IN FASTENING STANDARD X FABRICS THAT RUN ACROSS JOISTS AND STUDS. DO NOT LAP FABRICS.



A
FIRST APPLY STANDARD X ANGLE FABRICS, IN ALL INTERNAL ANGLES, USING FOUR NAILS TO EACH 48" STRIP.



D
USE STANDARD X EXPANDED CORNER BEAD ON EXTERNAL ANGLES. FULL LENGTH. ALLOW SUFFICIENT SPACE FOR CORNER BEAD WHEN APPLYING STRIPS.

Sketch Showing Correct Application of Standard X Lath and Standard X Metals

(Do not lap fabrics)

DETAILS—STANDARD X PLASTERING SYSTEM

STANDARD X SUSPENDED CEILINGS

Description

Standard X Suspended Ceiling System is a patented system of lathing and plastering. It is sold by licensed dealers and erected by licensed contractors and must be installed according to the manufacturer's specifications and directions.

SPECIFICATIONS

Note: Notes are explanatory or advisory only and should not be included in the specifications.

(1) Work Included

The following ceilings shall be furred, lathed and plastered with Standard X Suspended Ceiling construction.

Note: List and locate here all work covered by this contract and after each item note the finish, whether "trowel," "sand float," "Oriental interior floated or textured."

(2) Materials

(2a) Hangers—

(2a1) Minimum size for attaching main channels to supports— $\frac{1}{4}$ in. round steel or $1 \times \frac{1}{8}$ in. flat steel—spaced not to exceed 4 ft. in each direction.

(2a2) Minimum size for attaching $\frac{3}{4}$ -in. runner channels direct to supports—No. 8 galvanized wire—spaced not to exceed 2 ft. 6 in. in each direction.

(2b) Tie Wire—Minimum size No. 16 gauge galvanized annealed wire.

(2c) Main Channels—Minimum size $1\frac{1}{2}$ in.—minimum weight 442 lbs. per 1000 lin. ft.—maximum spacing not to exceed 4 ft. center to center.

(2d) Runner Channels—Minimum size $\frac{3}{4}$ in.—minimum weight 276 lbs. per 1000 lin. ft.—maximum spacing 2 ft. 6 in. center to center.

(2e) Lath Channels— $\frac{3}{8}$ -in. Standard X Lath Channels—minimum weight 113 lbs. per 1000 lin. ft.—spacing per pair 16 in. on centers.

(2f) Lath— $16 \times 48 \times \frac{3}{8}$ -in. Standard X Lath—weight approximately 1850 lbs. per 1000 sq. ft.

(2g) Metal Fabrics— $2 \times 2 \times 48$ -in. Standard X Angle Fabrics. 3×48 -in. Standard X Flat Fabrics.

(2h) Thumb Tacks—Special large size Standard X Thumb Tacks.

(3) Erecting Channels

(3a) Standard main channel hanger spacing not to exceed 4 ft. on center in both directions, properly install $\frac{1}{4}$ -in. pencil rod or $1 \times \frac{1}{8}$ -in. steel hangers to support $1\frac{1}{2}$ -in. main channels. Level and fasten main channel to hangers, and anchor channel ends at walls in an approved manner. Tie $\frac{3}{4}$ -in. runner channels, spaced not to exceed 2 ft. 6 in. apart, to main channels.

Note: Use above clause when the type of construction requires main channels.

(3b) Concrete joist and floor arches shall have hangers spaced not to exceed 2 ft. 6 in. on center throughout the length of joists or arches. Level and fasten runner channels to hangers, and anchor channel ends at walls in an approved manner.

(3c) (Concrete slabs) (hollow tile floor slabs) shall have hangers spaced not to exceed 2 ft. 6 in. on centers in both directions. Level and fasten runner channels to hangers, and anchor channel ends at walls in an approved manner.

(3d) Under bar joist construction, wire $\frac{3}{4}$ -in. runner chan-

nels, spaced 2 ft. 6 in. apart, to lower chords of joists. Level and fasten runner channels to hangers, and anchor channel ends at walls in an approved manner.

Note: In the types of construction included in (3b), (3c) and (3d), $\frac{3}{4}$ -in. runner channels may be fastened directly to hangers without the use of main channels.

(4) Erecting Lath

After (main channels and) $\frac{3}{4}$ -in. channels are in place, erection of Standard X Lath Channels and Standard X Lath shall be started.

Clip in position at right angles to runner channels and tight against the wall, across the full width of room, one pair of $\frac{3}{8}$ -in. Standard X Lath Channels, back to back. Use No. 2 Standard X Clips for attaching lath channels to runner channels.

Note: See top view, page 6.

Then place in position a row of Standard X Lath with trade mark up. Insert one edge of the lath into the $\frac{3}{8}$ -in. channels and support the opposite edge temporarily with No. 3 Standard X Clips, fastened to the $\frac{3}{4}$ -in. runner channels.

Note: See detail at start, page 6.

Next place another pair of Standard X Lath Channels, back to back, in position across the full width of room. Place one channel securely over the No. 3 Clips and 48-in. lath edges, and support both channels with No. 2 Clips.

Note: See top view, page 6.

Erect successive rows of Standard X Lath and Standard X Channels as above.

Break joints at ends of lath.

Fill in any small places next to the wall with metal lath strips, securely fastened and completely covering adjacent lath channel joints.

Note: See detail at finish, page 6.

(5) Reinforcing

Apply Standard X Metal Fabrics in all angles and over all joints, butting ends to form continuous reinforcing. Do not lap ends of fabrics. Fasten fabrics to Standard X Lath with special large size Standard X Thumb Tacks, approximately 12 in. apart, staggered.

First apply Standard X Angle Fabrics in all ceiling angles, nailing one edge to wall and fastening the other edge securely to the lath.

The flat fabrics have a natural curvature. To obtain best lathing and plastering results, apply the fabrics with bow out.

Next apply Standard X Flat Fabrics over all continuous lath channel joints and then cover the remaining lath joints with 12-in. lengths of Standard X Lath Fabric, securely fastening fabrics to lath with Standard X Thumb Tacks.

Note: See bottom view, page 6.

(6) Plastering

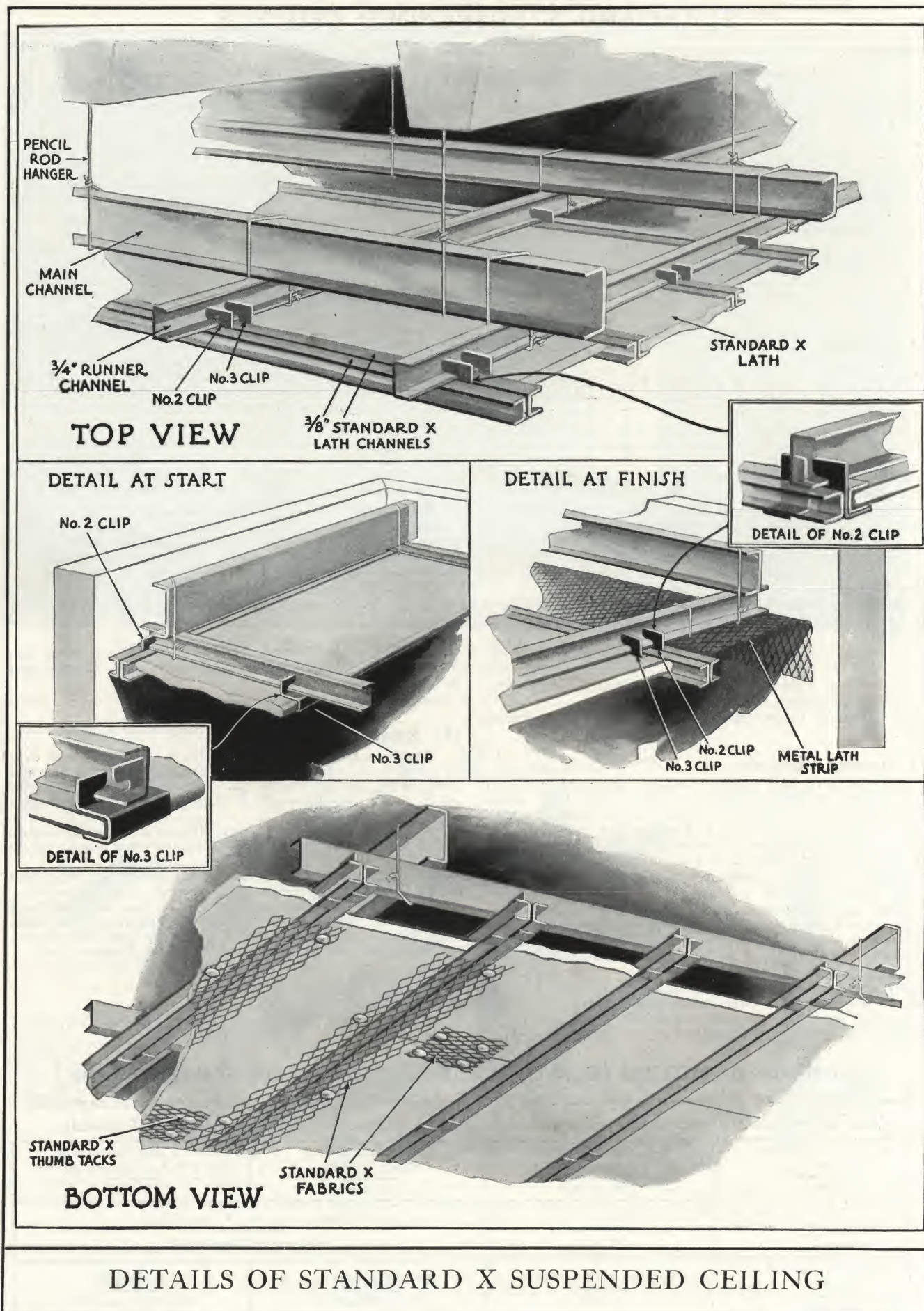
Note: Specify plastering as given in paragraph (6), page 3 for Standard X Plastering System.

ESTIMATED QUANTITIES OF MATERIAL REQUIRED FOR 100 SQUARE YARDS

(Based on $\frac{1}{2}$ -in. total thickness of plaster and solid yardage measurements of ceilings, before erection of partitions)

One square foot of completed ceiling, including $\frac{1}{2}$ in. plaster, weighs approximately 5 pounds

1½-in. Main Channels 4-ft. spacing 250 lin. ft.	¾-in. Runner Channels 2 ft. 6-in. spacing 400 lin. ft.	¾-in. Standard X Lath Channels 1400 lin. ft.	No. 2 Standard X Clips for 2 ft. 6-in. channel spacing 310 pieces
No. 3 Standard X Clips for 2 ft. 6-in. channel spacing 250 pieces	Standard X Lath 900 sq. ft.	2x2x48-in. Standard X Angle Fabric Depends on partition layout	
3x48-in. Standard X Flat Fabric 825 lin. ft.	Standard X Thumb Tacks 1500	Standard X Base Coat 20-22 100-lb. bags	Finish Coat Depends on type used

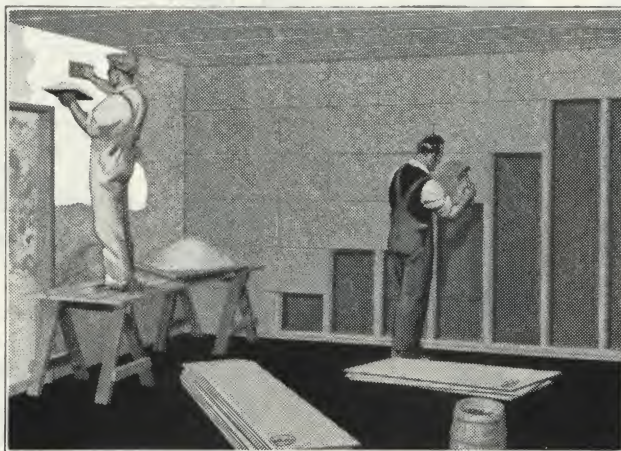


RED TOP ROCKLATH

Description

Red Top Rocklath is a solid sheet of gypsum encased in a tough fibrous covering, forming a uniform, strong, fire-resisting plaster base. It is made in convenient, practical-size units. The fibrous covering affords uniform suction, insuring a permanent, strong bond with gypsum plaster. Red Top Rocklath is easily nailed to wood studding, furring or joists.

Red Top Rocklath has the U.S.G. patented reinforced folded edge which gives maximum strength. With the new rounded edge profile, the edge is not subject to injury and the boards are easy to handle.



Applying and Plastering Red Top Rocklath

Sizes, Weights, Etc.

Red Top Rocklath boards are made $\frac{3}{8}$ in. thick and in two sizes—16 in. x 32 in. and 16 in. x 48 in. The boards are packed in bundles for easy handling and stacking—6 sheets to the bundle. Each bundle of 32-in. boards contain $21\frac{1}{2}$ sq. ft. and weighs about 40 lbs.; each bundle of 48-in. boards contains 32 sq. ft. and weighs about 60 lbs. Each 32-in. unit weighs $6\frac{1}{2}$ lbs., the 48-in. size, 10 lbs.

Either size provides the usual vertical joint break (similar to that of wood lath) without cutting.

Advantages

Fireproof—Does not burn or readily transmit heat. It interposes a continuous fireproof sheet of substantial thickness over the wood-frame construction, thus tending to confine the fire to the room in which it originates.

Enduring—Does not disintegrate or corrode.

No Expansion or Contraction—Does not expand, warp or buckle when wet plaster is applied, consequently will not shrink when plaster dries out.

An Ideal Plaster Base—The strong fiber covering with its uniform suction prevents the plaster from "slipping" when applied. Gypsum plaster is easily applied and the bond is strong and permanent. Tests show that plaster bonds more firmly

lath is conserved, the thickness is uniform throughout.

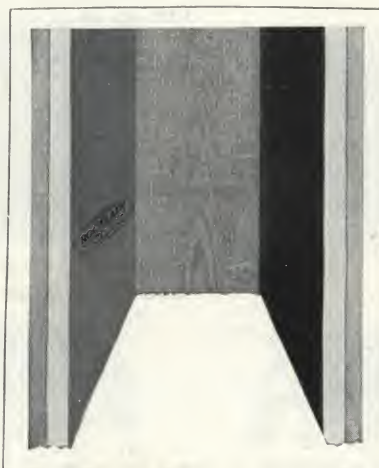
The job may be said to be both plastered and back plastered in one operation.

Eliminates Moisture—Red Top Rocklath needs no wetting before plaster is applied. The continuous dry gypsum sheet, $\frac{3}{8}$ in. thick, eliminates its proportionate part of the usual wet plaster moisture and at the same time seals off the applied plaster moisture from contact with the absorptive wood framing, preventing much of the usual swelling and subsequent shrinkage.

Due to there being less moisture present, the plaster and building are dry and ready for the application of interior wood trim and decorating in the minimum time.

Soundproof—Gypsum is a poor conductor of sound. As compared with wood lath and plaster, tests show that Red Top Rocklath and plaster walls are superior in effectively resisting sound transmission.

Comparative Cost—The completed wall (Red Top Rocklath and plaster) costs less than metal lath and plaster, and about the same as wood lath and plaster.



Rocklath Does Not Burn

Replaces combustible material between walls; prevents waste of plaster

Specifications

See Master Specifications, page 16.



Home of Architect S. L. Adler, Mobile, Ala.

Red Top Rocklath used, also Red Top Plaster and Oriental Interior Colored Plaster Finish



Bundled Rocklath

RED TOP METAL LATH AND ACCESSORIES

Introductory

That the UNITED STATES GYPSUM COMPANY may furnish all materials required for lathing and plastering, thus making available to the distributor and the contractor the economy and advantage of mixed car shipments and to the architect centralized responsibility, the company has placed upon the market the complete Red Top Line of Metal Lath and Accessory Products.

Red Top Metal Lath products are distributed nationally. Samples furnished on request.

Red Top Diamond Mesh Lath

Materials—

Open hearth steel, painted black.

Galvanized.

Copper bearing steel, painted black.

Armco ingot iron, painted black.

Weights—2.2, 2.5, 3.0, 3.4 lbs. per sq. yd.

Self-furring (corrugated)—All above materials and weights furnished in crimped or corrugated self-furring type.

Sheet Size—24x96 in. packed 9 sheets (16 sq. yds.) per bundle.

Red Top 1/8-in. Flat Rib Lath

Materials—

Open hearth steel, painted black.

Copper bearing steel, painted black.

Armco ingot iron, painted black.

Galvanized in 3.6 lb. weight only.

Weights—2.75, 3.0, 3.4, 4.0 lbs. per sq. yd. Galvanized only in 3.6 lbs. per sq. yd.

Sheet Size—24x96 in., packed 9 sheets (16 sq. yds.) per bundle.

Red Top 3/8-in. Rib Lath

Materials—

Open hearth steel, painted black.

Copper bearing steel, painted black.

Armco ingot iron, painted black.

Galvanized in 3.6 lb. weight only.

Weights—2.75, 3.0, 3.4, 4.0 lbs. per sq. yd. Galvanized only in 3.6 lbs. per sq. yd.

Sheet Size—24x96 in., packed 9 sheets (16 sq. yds.) per bundle.

Red Top 3/4-in. Rib Lath

Materials—

Open hearth steel, painted black.

Copper bearing steel, painted black.

Armco ingot iron, painted black.

Weights—46, 56, 74 lb. per sq. ft.

Note: 3/4-in. Rib Lath sold by square foot. All other lath types sold by square yard.

Sheet Size—24 in. wide by 4 to 12-ft. (inclusive) lengths, 6 sheets to the bundle.

Red Top Sheetlath

Materials—Open hearth steel, painted black and galvanized.

Weights—4.5 lbs. (painted black) and 6.18 lbs. (galvanized) per sq. yd.

Sheet Size—24x96 in., packed 9 sheets (16 sq. yds.) per bundle.

Red Top Expanded Metal—1 1/2-in. Mesh for Stucco

Materials—Open hearth steel, painted black.

Weights—1.8, 3.6 lbs. per sq. yd.

Sheet Size—1.8 lbs., 48x96 in., 3.6 lbs., 51x96 in., packed 9 sheets to bundle.

Furring Nails—850 to box; weight 8.5 lbs. per box.

Red Top Cornerite and Strips (Diamond Mesh—Special Selvage Edge)

Materials—Open hearth steel, painted black.

Weight—2.2 lb. per sq. yd. basis. Cornerite, 140 lbs. per M ft. Strips, 75 lbs. per M ft.

Size—Cornerite 3x3x96 in.; strips 3x96 in. each; packed 504 ft. per bundle.

Red Top Cold Rolled Channels

Material—Open hearth steel.

Stock Lengths—14, 16, 18, 20 ft.

Sizes and Weights—

3/4 in.—276 lbs. per 1000 lin. ft.; packed 20 pieces to bundle.

1 in.—332 lbs. per 1000 lin. ft.; packed 10 pieces to bundle.

1 1/2 in.—456 lbs. per 1000 lin. ft.; packed 10 pieces to bundle.

2 in.—552 lbs. per 1000 lin. ft.; packed 10 pieces to bundle.

Special large flange (Cubro) 270 lbs. per 1000 lin. ft.; packed 20 pieces to bundle.

Note: Sold only in full, unbroken bundles.

Red Top Corner Beads

Material—Galvanized.

Types and Weights—

No. 1A—26 gauge Expansion Type; weight 230 lbs. per 1000 lin. ft.

No. 2A—26 gauge Scalloped Type; weight 220 lbs. per 1000 lin. ft.

No. 4A—26 gauge Standard Type; weight 200 lbs. per 1000 lin. ft.

No. 5A—28 gauge 3/4-in. radius Bullnose; weight 245 lbs. per 1000 lin. ft.

No. 9A—Clips for bullnose bead.

No. 10A—26 gauge 3/4-in. radius Expansion Type Bullnose; weight 375 lbs. per 1000 lin. ft.

Packed—Crated, approximately 500 or 1000 lin. ft. per crate, sold only in full crates.

Red Top Base Screeds

Materials—Galvanized.

Types and Weights—

No. 3A—26 gauge expansion flush; weight 230 lbs. per 1000 lin. ft.

No. 6A—26 gauge plain; weight 140 lbs. per 1000 lin. ft.

No. 7A—26 gauge curved point; weight 195 lbs. per 1000 lin. ft.

Packed—Crated, approximately 500 or 1000 lin. ft. per crate, sold only in full crates.

Red Top Picture Mould

Material—26 gauge, galvanized.

Weight—220 lbs. per 1000 lin. ft.

Packed—Crated, approximately 500 or 1000 lin. ft. per crate, sold only in full crates.

Red Top Expansion Casings

Materials—Galvanized.

Types and Weights—

No. 4—26 gauge, quarter round; weight 350 lbs. per 1000 lin. ft.

No. 6—26 gauge, O. G.; weight 350 lbs. per 1000 lin. ft.

No. 8—24 gauge, O. G.; weight 390 lbs. per 1000 lin. ft.

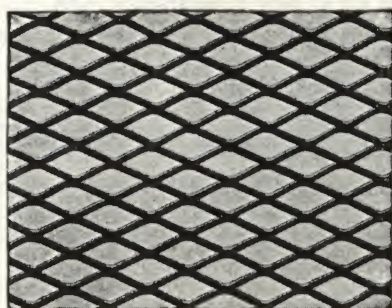
No. 9—24 gauge, special quarter round, 435 lbs. per 1000 lin. ft.

Clips—Patent casing locking clips.

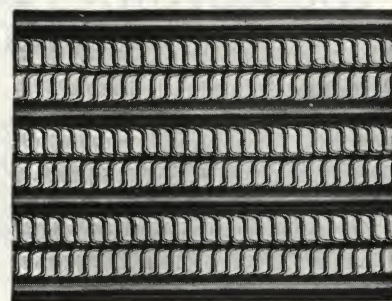
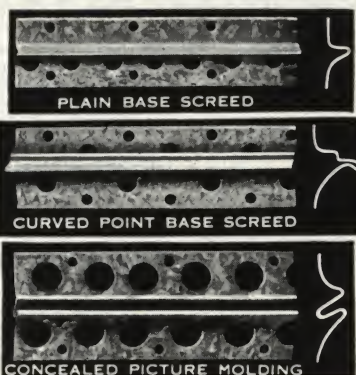
Miters—One-piece stamped casing miters for Nos. 4, 6 and 9.

Master Specifications

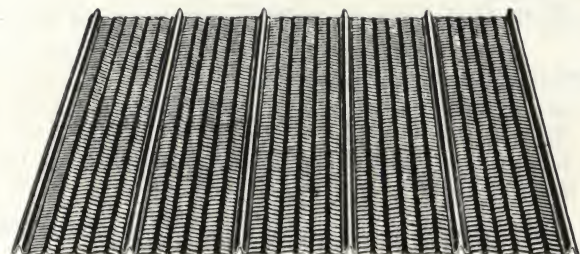
For use of Red Top Metal Lath and Accessories see Master Specifications, page 16.



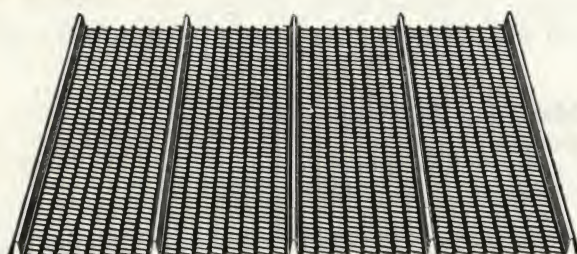
Diamond Mesh



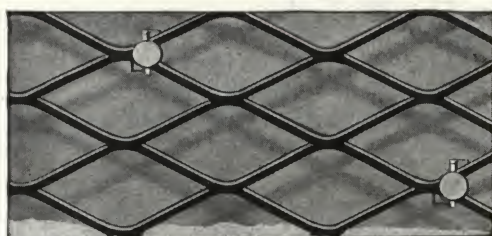
Flat Rib (Plaster Saver)



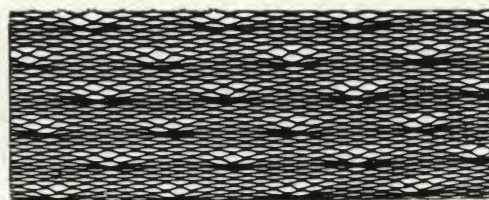
$\frac{3}{8}$ -in. Rib



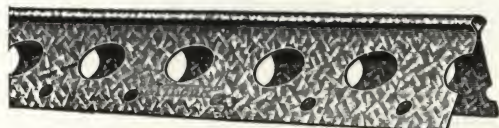
$\frac{3}{4}$ -in. Rib



Expanded Metal for Stucco



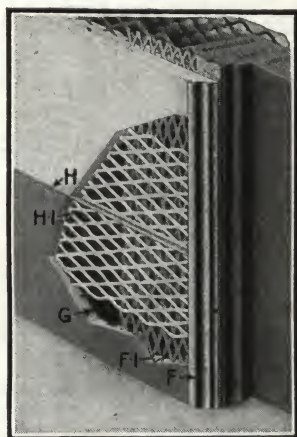
Self-furring



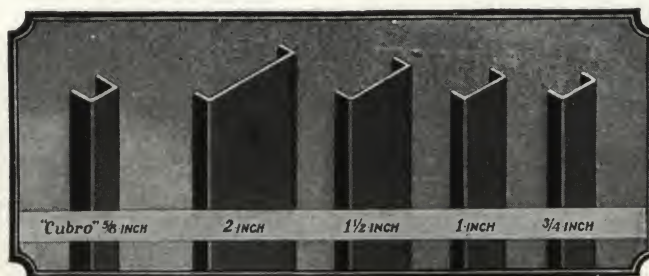
Standard Type Corner Bead No. 4A



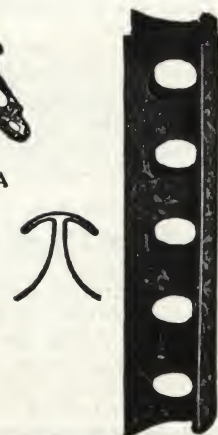
Scalloped Type Corner Bead No. 2A



Expansion Casings



Expansion Corner Bead No. 1A



Small Bullnose Corner Bead No. 5A



Expansion Bullnose Corner Bead No. 10A

RED TOP METAL LATH AND ACCESSORIES

YOUNGSTOWN PRESSED STEEL METAL LATH DIVISION OF UNITED STATES GYPSUM COMPANY

Introduction

Unprecedented service on metal lath products is assured as a result of the acquisition by this company of the metal lath division of the Youngstown Pressed Steel Company. U.S.G. will maintain on these products its usual ethical policy, and the fact of both metal lath and plaster being supplied by one reputable manufacturer suggests a unified responsibility of definite advantage to every user.

YPS $\frac{3}{8}$ -in. Rib Lath

Materials—

Open hearth steel, painted black.

Copper bearing steel, painted black.

Weights—2.5, 3.0, 3.4, 4.0 lbs. per sq. yd.

Sheet Size—24x96 in., packed 9 sheets (16 sq. yds.) per bundle.

YPS Mahoning Diamond Lath

Materials—

Open hearth steel, painted black.

Galvanized.

Copper bearing steel, painted black.

Weights—2.2, 2.5, 3.0, 3.4 lbs. per sq. yd.

Corrugated—All above materials and weights finished in corrugated (self-furring) on order.

Sheet Size—24x96 in., packed 9 sheets (16 sq. yds.) per bundle.

YPS Z-Rib Lath

Materials—

Open hearth steel, painted black.

Copper bearing steel, painted black.

Galvanized (3.4 lb. weight only).

Weights—2.75, 3.0, 3.4 lbs. per sq. yd.

Sheet Size—24x96 in., packed 9 sheets (16 sq. yds.) per bundle.

YPS Smooth Edge Cornerite

Material—Open hearth steel, painted black.

Weight—2.2 lb. Diamond Mesh.

Sizes—Flange widths, 2, 3 and 4 in. Length, 8 ft. Packed 50 pieces per bundle.

NORTH WESTERN EXPANDED METAL DIVISION OF UNITED STATES GYPSUM COMPANY

Introduction

The acquisition also of the North Western Expanded Metal Company has made the U.S.G. line of Metal Lath Products complete, has further augmented manufacturing facilities, and has brought in new technical experience which, working in conjunction with the U.S.G. and "YPS" engineers, assures manufacturing standards of the highest order. Every city and town in the country is now served by complete stocks of metal lath products close at hand.

Kno-burn, Jr. (Small Diamond Mesh Lath)

Materials—

Open hearth steel, painted black.

Galvanized.

Copper bearing steel, painted black.

Pure iron, painted black.

Weights—2.2, 2.5, 3.0, 3.4 lbs. per sq. yd.

Corrugated—All above materials and weights furnished in corrugated (self-furring) on order.

Sheet Size—24x96 in., packed 9 sheets (16 sq. yds.) per bundle.

Plasta-Saver ($\frac{1}{8}$ -in. Rib Lath)

Materials—

Open hearth steel, painted black.

Copper bearing steel, painted black.

Weight—3.4 lbs. per sq. yd.

Sheet Size—24x96 in., packed 9 sheets (16 sq. yds.) per bundle.

Norwest Flat Rib Lath

Materials—

Open hearth steel, painted black.

Copper bearing steel, painted black.

Weights—2.75, 3.0, 3.4 lbs. per sq. yd.

Sheet Size—24x96 in., packed 9 sheets (16 sq. yds.) per bundle.

$\frac{3}{8}$ -in. Longspan Rib Lath

Materials—

Open hearth steel, painted black.

Copper bearing steel, painted black.

Weights—3.0, 3.4, 4.0 lbs. per sq. yd.

Sheet Size—24x96 in., packed 9 sheets (16 sq. yds.) per bundle.

$\frac{3}{4}$ -in. Longspan Rib Lath

Material—Open hearth steel, painted black.

Weights—.50, .60, .75 lb. per sq. ft.

Sheet Sizes—2 ft. wide x 4, 5, 6, 7, 8, 9, 10, 11, 12 ft. long.

Steelhart Stucco Base

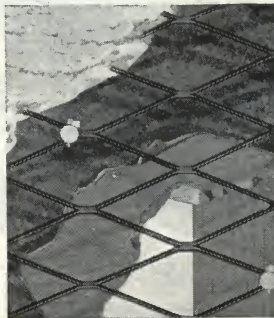
Material—Copper bearing steel, painted black.

Weights—1.8, 3.6 lbs. per sq. yd.

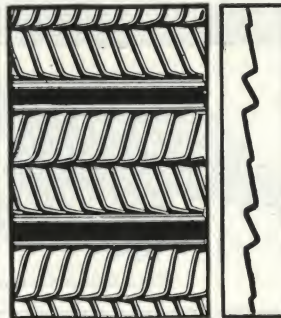
Sheet Sizes—1.8 lb., 48x96 in. (32 yds. per bundle); 3.6 lb., 51x96 in. (34 yds. per bundle).



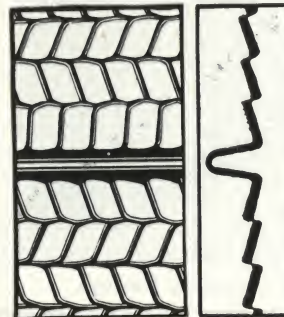
Kno-Burn Jr.



Steelhart Stucco Base



YPS Z-Rib Lath



YPS $\frac{3}{8}$ -in. Rib Lath

GYPSUM WALL PLASTERS

General Features

Description—Gypsum Plasters are made by driving off water of crystallization from gypsum rock through calcination, or heat treatment. The addition of water to this basic product (calcined gypsum rock) forms a plastic mass which unites with the same amount of water as was driven off during calcination. When this plaster is mixed with water it re-crystallizes or sets. The plaster resists fire and is extremely hard and strong.

Quick Set—Fast Drying—Gypsum Plaster sets up uniformly hard and homogeneous within two to six hours after application. Inside of thirty-six hours, under proper drying conditions, the plaster dries and there is no further dampness or sweating.

It is due to these prime characteristics that Gypsum Plasters have acquired almost exclusive preference and use.

Advantages

Adaptability—Gypsum Plaster adheres satisfactorily to gypsum, wood or metal lath; gypsum or clay tile; brick or other approved plastering surface.

Fire Retarding—Made of gypsum, it is a valuable fire-resistant.

Exceptional Adhesiveness—Its exceptional adhesiveness adds strength which greatly increases structural durability.

Does Not Expand or Contract—It does not expand and tear itself loose from the surface to which it is applied, even when subjected to fire. It will not crack of itself, shrink or stain.

Durable—Gypsum Plaster will withstand the wear and tear of occupancy during the life of the building. Its hard, dense body affords a substantial foundation for the finish coat and applied decoration.

Saves Time—It sets in two to six hours and dries within 36 hours—interior trim and finish may thus, reasonably soon, follow the plastering without danger from moisture.

Plasticity, Richness and "Slip"—U.S.G. Plasters have been developed as much for the convenience of the plasterer as for perfection in the above named advantages. The result is an unusual richness and "slip" which is appreciated by the competent mechanic. They mix easily at the mortar box; they go on quickly and spread far, resulting in maximum coverage with minimum labor.

Uniformity

The quality of U.S.G. Plasters is rigidly controlled by means of repeated chemical tests, physical tests, and by every known kind of inspection in every stage of manufacture, from the crude gypsum rock to the finished product. Samples from every shipment, large or small, are retained for future reference.

All U.S.G. Plaster meets the standard specification for Gypsum Plaster of the American Society for Testing Materials.

Identification—Red Top Bag

In addition to the U.S.G. trade-mark on each bag of plaster, the UNITED STATES GYPSUM COMPANY's Plasters are contained in the standard *Red Top* bag, which provides a positive means of identification that discourages substitution.

The red top is assurance that the material in the bag has been made and tested according to most rigid specifications.

Plaster Package

General—Every package of U.S.G. Gypsum Plaster bears the familiar trade-mark (see page 1), and bags have the *Red Top*. Each bag bears the brand and the mixing directions.

Multi-wall Paper Bag—The "multi-wall" bag, made of multiple layers of strong kraft paper with air spaces between, is the standard "paper" bag of the UNITED STATES GYPSUM COMPANY.

Because of its strength the bag can be dropped from as high as one can reach without danger of breakage. The multi-wall gives adequate protection—the several layers of paper keep the plaster *dry* in the warehouse, and a sudden shower while the material is in transit or unprotected at the job will do little if any damage. It is light in weight, easily handled and stored. The dealer and contractor have no investment tied up in bags which are to be returned for credit; nor do they lose the value of sacks stolen from the job or damaged.

In view of these advantages we recommend the multi-wall bag as the most satisfactory plaster package both from an economic as well as a practical viewpoint. Multi-wall paper bags are of 80-lb. and 100-lb. capacity.

Jute Sacks—When plaster is ordered in jute sacks, these are sold with the plaster and credited when returned in good condition, freight prepaid, to the mill from which the plaster shipment was made. Return of sacks must be made in accordance with our standard shipping directions and our customary terms.

Cloth or jute sacks are of 100-lb. capacity.

Brands

The standardization nationally of U.S.G. plasters under the "Red Top" brand is a protection to the architect and a convenience to the trade.

The architect is assured that the quality of the plaster, from whatever mill shipped, will be identical.

When specifying "Red Top" for use in a distant city, the architect is assured (1) that the plaster will be the same as that with which he is familiar; (2) that a shipping mill is in close proximity; (3) that the plaster will be recognized as standard by the local mechanics.

Covering Capacity

The covering capacity of U.S.G. Plasters is as great for each type of material as it is possible to attain.

Covering capacity necessarily depends upon conditions under which the plaster is applied—upon the mechanic, thickness of grounds, kind and trueness of the surface to be plastered, spacing or voids of lath, quality of sand, etc.

The covering capacity given hereinafter with each type of material and for the various surfaces to receive the plaster is based on average conditions, and may thus be accepted as a safe basis for calculating the quantity of each class of material required according to the Master Specifications given on pages 16 to 20 inclusive.



U.S.G. Plaster Products Are Shipped in Strong Moisture-proof Multi-wall Fiber Bags

CEMENT PLASTERS

Use

Use for scratch and brown coats.

Brands

Note: See "Brands," page 11.

Red Top Cement Plaster.
Red Top Eldorado Cement Plaster (Gypsite).

Note: Gypsite plasters are popularly known as "dark plasters." The distinguishing features of Gypsite are its long-keeping and easy-spreading qualities. Gypsite plasters are extensively used in the southwest states, as they are well adapted to the climatic and building conditions of that section.

Description

Cement Plasters are "neat" materials—sand to be added at the job.

Characteristics

These materials are unusually rich, spread well under the trowel and, when mixed properly with a good grade of sand,

are uniformly satisfactory both in working qualities and ultimate results in the finished wall.

Package

Shipped in full weight 80-lb. and 100-lb. paper bags or 100-lb. jute sacks. Kings Windsor also supplied in 320-lb. (300 lb. net) barrels.

Covering Capacity

Note: See "Covering Capacity," page 11.

Basis—Under average conditions Gypsum Cement Plaster mixed and applied in accordance with standard specifications will cover about as follows:

Plastering surface	Wood lath	Metal lath	Gypsum lath	Brick and clay tile	Gypsum tile
Sq. yds. per ton	180-210 (Sanded 2 to 1)	105-135 (Sanded 2 to 1).	225-240 (Sanded 2 to 1)	165-200 (Sanded 3 to 1)	235-255 (Sanded 3 to 1)

Specifications

See Master Specifications, page 16.

WOOD FIBER PLASTERS

Use

Use for scratch and brown coats.

Brands

Note: See "Brands," page 11.

Red Top Wood Fiber Plaster.
Red Top Eldorado Wood Fiber Plaster (Gypsite).

Note: Gypsite plasters are popularly known as "dark plasters." The distinguishing features of Gypsite are its long-keeping and easy-spreading qualities. Gypsite plasters are extensively used in the southwest states, as they are well adapted to the climatic and building conditions of that section.

Description

Wood Fiber Plasters are shipped ready to use, requiring only the addition of water. The base is Gypsum Plaster, to which is added finely shredded wood fiber, uniformly distributed.

Characteristics

Wood fiber plaster avoids the handling of sand, the dangers of poor sand and oversanding.

The very smooth and fatty nature gives easy spreading and excellent working qualities.

Composed of gypsum and shredded wood fiber, it is of greater bulk. When applied it is about two-thirds the weight of sanded cement plaster.

Through the elimination of sand, the plaster is practically pure gypsum, wood fiber serving as reinforcement. The plaster is extremely tough, strong, dense and durable.

It is superior to sanded plaster in fire-resisting, insulating and sound-deadening qualities.

Its greater flexibility better adapts it to withstand vibrations and strains.

Wood Fiber Plaster may be sawed like wood.

It is especially adaptable to alterations and is desirable for winter use.

It is nearly as economical in cost as Cement Plaster and is rapidly gaining in popularity. In many markets it is used almost exclusively.

Package

Shipped in full weight 80-lb. and 100-lb. paper bags or 100-lb. jute sacks.

Covering Capacity

Note: See "Covering Capacity," page 11.

Basis—Under average conditions Gypsum Wood Fiber Plaster mixed and applied in accordance with standard specifications will cover about as follows:

Plastering surface	Wood lath	Metal lath	Gypsum lath	Brick and clay tile	Gypsum tile
Sq. yds. per ton	90-100 (Unsanded —water only added)	55-65 (Unsanded —water only added)	115-120 (Unsanded —water only added)	150-170 (Equal parts sand to be added)	180-210 (Equal parts sand to be added)

Specifications

See Master Specifications, page 16.

PREPARED PLASTERS (SANDED)

Use

Use for scratch and brown coats.

Brands

Note: See "Brands," page 11.

Red Top Sanded Plaster.
Red Top Sanded Plaster for Brick or Tile.
Red Top Sanded Wood Fiber Plaster.

Description

Prepared Plasters are shipped ready to use, requiring only the addition of water. The base is Gypsum Plaster to which is

added nothing but sharp, clean plastering sand, thoroughly graded and screened.

Correct proportions and mixing are accomplished by automatic machines at the factory.

Characteristics

Prepared plasters are especially desirable in localities where good sand is difficult to obtain.

Since they are ready to apply with the addition of water only, they are particularly well adapted for use in winter when unfrozen sand is difficult or expensive to obtain.

Since these plasters may be readily mixed inside the building, they are useful for repair and remodeling work in all seasons.

Package

Shipped in full weight 80-lb. and 100-lb. paper bags or 100-lb. jute sacks.

Covering Capacity

Note: See "Covering Capacity," page 11.

Basis—Under average conditions Gypsum Prepared Plaster mixed and applied in accordance with standard specifications will cover about as follows:

Plastering surface	Wood lath	Metal lath	Gypsum lath	Brick and clay tile	Gypsum tile
Sq. yds. per ton	60 to 70	35 to 45	75 to 80	45 to 55	65 to 70
(Plaster mixed with water only—no sand added)					

Specifications

See Master Specifications, page 16.

BONDCRETE—FOR INTERIOR CONCRETE SURFACES**Use**

Use for both scratch and brown coats applied over concrete surfaces.

Description

Ordinary gypsum plaster or lime mortar does not adhere properly to concrete—consequently the use of Bondcrete, a specially made plaster for concrete surfaces, is recommended.

Characteristics

Bondcrete Plaster adheres strongly to dry concrete because of its cementitious qualities and because it maintains a practically unchanging volume during the process of setting and hardening.

Bondcrete is dense, durable and fire-resisting. It works well under the tools, and needs only water to make it ready for use.

Bondcrete must not be applied over smooth concrete.

Bondcrete must not be covered with a sanded brown coat—use only Bondcrete full to the grounds.

Bondcrete may be finished with any of the finishes described on this and the following page.

Package

Shipped in full weight 80-lb. and 100-lb. paper bags or 100-lb. jute sacks.

Covering Capacity

Usually from 90 to 120 sq. yds. to the ton coverage depending upon regularity of concrete surface and thickness applied.

Note: See "Covering Capacity," page 11.

Specifications

See Master Specifications, page 16.

RED TOP TROWEL FINISH

Note: This finish is also furnished mixed with a small percentage of aggregate for texturing purposes.

Use

Use for white trowel finish coat only.

Description

Of exceptionally fine quality is this prepared trowel finish, which works as easy and covers as much surface as lime putty. The admixture of water fits it for immediate use. Numerous field tests have convinced us that this is the ideal prepared finish.

Characteristics

It mixes easily to a light, creamy consistency and can be applied in two coats. Because no slaking or soaking of lime

is necessary and because the finish is mixed in the box instead of on the hawk, it is economical. It contains no talc, clay or other objectionable ingredient. The alkalinity of the lime content is reduced by chemical action, so that the walls may be safely decorated as soon as dry.

Package

Shipped in full weight 80-lb. and 100-lb. paper bags.

Covering Capacity

Coverage equal to lime putty and more than any other prepared finish—450 to 500 sq. yds. per ton.

Specifications

See Master Specifications, page 16.

PREPARED GYPSUM FINISHES**Use**

Use for finish coat only.

Brands

Note: See "Brands," page 11.

Trowel Finishes

Red Top Universal White Trowel Finish.
Red Top Adamant Trowel Finish (White).
Red Top Adamant Slate Colored Trowel Finish.
Red Top Badger Trowel Finish (Gray).

Sand Float Finishes

Red Top Silica Sand Float Finish (White).
Red Top Adamant Gray Sand Float Finish.
Red Top Adamant White Sand Float Finish.
Red Top Sand Float Finish (Gray).

Description

Prepared Gypsum Finishes require only the addition of water to make them ready for use. Made of gypsum, they form a perfect and natural bond with any gypsum plaster base coat. The sand float finishes contain selected sharp

clean silica sand, properly graded, screened and thoroughly dried.

Characteristics

These finishes are ready to use when water is added, assuring a uniform mix of correct proportion. The sand float finishes are especially recommended in winter when unfrozen sand of the requisite quality is difficult to obtain. Decorations may safely be applied as soon as the finish dries out.

Package

Shipped in full weight 80-lb. and 100-lb. paper bags or 100-lb. jute sacks.

Covering Capacity

Under average conditions Gypsum Trowel Finish, if mixed and applied in accordance with standard specifications, will cover about 350 to 400 yds. per ton; Gypsum Sand Float Finish about 250 to 275 yds. per ton.

Specifications

See Master Specifications, page 16.

ORIENTAL INTERIOR—COLORED FINISH PLASTER**Use**

Use for textured or floated plaster finish coat.

Description

Oriental Interior is a colored finish plaster. The material

is made in thirteen standard shades and white. Tints are produced with mineral colors, great care being taken to assure absolute uniformity of shade.

Oriental Interior is ready for use with the addition of water only. It is used as a finish coat over the regular base coat of plaster and can be floated or textured.

Characteristics

With ordinary tools, attractive, tinted, float or textured finishes may be obtained with Oriental Interior in perfect accord with modern decorating practice. Tile or stone unit effects may be produced by scoring walls before Oriental Interior has hardened.

Change of color scheme may be accomplished at any time by the application of paint or other decorative materials.

Unvarying uniformity in both color and quality is assured. The material is scientifically mixed at the mill—the addition of water only is required for immediate use.

The positive regulation of color insures walls with the

minimum amount of “joinings” and avoids the danger of inaccurate mixing

Package

Shipped only in full weight 100-lb. paper bags. Order by color name designated on color cards or samples.

Covering Capacity

The covering capacity of Oriental Interior finish is approximately 250 sq. yds. per ton, varying according to textures.

Specifications

See Master Specifications, page 16.

FINISHING LIME**Use**

Use finishing lime for finish coat only in conjunction with gauging plaster described below.

Brands

Note: See “Brands,” page 11.

Hydrated Finishing Lime

Red Top Ivory Finish Lime.

Red Top Grand Prize Finish Lime.

Red Top Finish Lime.

Farnam Cheshire Superior Hydrate.

Finishing Quick (or Common) Lime

Farnam Cheshire Finishing Lime—in Lump, Pulverized, Granular and Superfine.

Berkshire Hills Crescent Finishing Lime—in Granular and Pulverized.

Description

These limes are specially prepared for finishing purposes. They possess a rich plasticity that makes them spread easy and far; hence they save time and labor.

Characteristics

Hydrated lime saves the time and trouble of slaking and screening lime on the job. The famous Ohio dolomite from which Red Top hydrated lime is made, together with U.S.G. standards of manufacture, make this lime unexcelled for finishing purposes.

ishing purposes. It is uniformly burned and thoroughly hydrated, is of a snowy white color, and is absolutely free from “pops” and “pits.” It meets the standard specifications for hydrated lime of the American Society for Testing Materials.

Farnam Cheshire and Berkshire Hills Limes are burned from selected high calcium rock and are of exceptional quality. Because of their exceeding purity and the physical characteristics of the stone, these limes are unusually quick slaking and are free from popping and pitting. They have a high putty yield.

Package

Hydrated Lime is shipped in full weight 10-lb. and 50-lb. paper bags. Quick Lime is shipped in 180-lb. and 280-lb. net weight wood barrels and steel drums, also in bulk. The Superior and Granular Quick Lime is shipped also in 80-lb. Multi-Wall paper moisture-proof bags.

Covering Capacity

Under average conditions one ton of Red Top Hydrated Lime, when used in proportion of two parts of dry lime to one part of dry gauging plaster by weight, should finish about 800 sq. yds. A ton of Quick Lime, when mixed in the above proportions, should finish about 1000 yards.

Specifications

See Master Specifications, page 16.

MASON'S LIME

Note: The UNITED STATES GYPSUM COMPANY also manufactures a high-grade Agricultural Lime.

Use

As a mortar for setting brick, stone, etc., and for mixing with Portland cement and concrete.

Brands

Note: See “Brands,” page 11.

Mason's Hydrate Brands

Red Top Mason's Hydrate.

Farnam Cheshire Superior Hydrate.

Mason's Quick (or Common) Lime Brands

Red Top Pebble Lime.

U.S.G. Mason's Quick Lime, in Lump, Granular, and Pulverized.

Farnam Cheshire Mason's Quick Lime, in Lump, Pebble, Granular and Pulverized.

Description

The use of lime for mortar means more bricks laid per hour, no loss in droppings, no loss from hardening in the mortar box, and no time lost in mixing or retempering.

Red Top and U.S.G. Mason's Hydrate are prepared limes of uniformly high quality, requiring no slaking on the job.

Of excellent quality also is our Mason's Quick Lime. It is exceedingly quick slaking and yields a putty of high sand carrying capacity.

Package

Mason's Hydrate is shipped in 50-lb. paper bags. Mason's Quick Lime is shipped in 180 or 280-lb. wood barrels or steel drums, also in bulk.

Proportions Recommended

1 part lime putty to 3 parts sand, by volume. Or 8 sacks of hydrate, or 8 cu. ft. of putty to 4 sacks Portland cement and 1 cu. yd. of sand.

GAUGING PLASTERS**Use**

Use for finish coat only in conjunction with lime putty described above.

Brands

Note: See “Brands,” page 11.

Slow Set

Red Top Slow Set Gauging Plaster (Gray).

Red Top Star Gauging Plaster (White).

Red Top Superfine Finishing Plaster (White).

Red Top Plaster Paris for Painters.

Quick Set

Red Top Quick Set Gauging Plaster (Gray).

Red Top Champion Gauging Plaster (White).

Red Top Kings Diamond Gauging Plaster (White).

Red Top NYC Mills Gauging Plaster.

Description

These plasters are made of raw materials carefully selected from gypsum deposits unusually well suited for the manufacture of calcined plasters for this particular purpose.

Characteristics

They are made in both “slow set” and “quick set,” and are uniformly ground to just the right fineness to insure easy working and mixing qualities.

Package

Shipped in full weight 80-lb. and 100-lb. paper bags; 100-lb.

cloth sacks; 100-lb. paper-lined jute sacks; 250-lb. (230 lbs. net) barrels and 320-lb. (300 lbs. net) barrels.

Covering Capacity

Under average conditions one ton of Gauging Plaster,

mixed one part of dry gauging to two parts of dry hydrated lime by weight, will cover about 1600 sq. yds.

Specifications

See Master Specifications, page 16.

RED TOP KEENE'S CEMENT

Use

Use for high grade plasterwork, particularly to receive fine decorative treatment and where the utmost in sanitation is desired.

Description

Red Top Keene's Cement is the hardest and densest gypsum material that is applied with a trowel. It is manufactured from specially selected gypsum mined at Southard, Oklahoma. Red Top Keene's Cement excels in smooth, uniform working qualities and in tensile strength, due to the selected material and the U.S.G. improved methods of manufacture and rigid mill inspection.

Note: Red Top Keene's Cement is regarded by many manufacturers as the best on the market for scagliola work.

Characteristics

Keene's Cement is ground to extreme fineness, is pure

white in color and takes a very high, glass-like polish. Its extremely hard surface is impenetrable to rodents and vermin and affords no lodgment for disease germs. It is easily cleaned. It contains no alkali to stain delicate wall tints or saponify the oil in paints, hence it is an ideal base for fine decorating.

Package

Shipped in 100-lb. jute and paper-lined jute sacks.

Covering Capacity

Under average conditions one ton of Keene's Cement, when used neat and in accordance with specifications, will cover about 400 to 500 sq. yds.

Specifications

See Master Specifications, page 16.

RED TOP (ARIDIZE) MOULDING PLASTERS

Use

Use for ornamental moulded plaster work.

Brands

Note: See also "Brands," page 11.

Red Top Moulding Plaster.

Red Top No. 1 Moulding Plaster (White).

Description

The requirements for moulding plaster are distinctly different from any other class of plaster. Gypsum deposits suitable for making this material are exceedingly rare.

These plasters are produced by a manufacturing process, patented by the UNITED STATES GYPSUM COMPANY, which artificially ages the plaster, giving it those desirable characteristics of easy mixing and great hardness not obtainable in ordinary plasters until 8 to 12 months' ageing.

Heretofore, plasters have been aged by storing in warehouses but the results could not be uniform because of variations in temperature and humidity conditions. The production of Aridize Plasters, however, depends in no way on the atmospheric conditions, for an artificial atmosphere is produced at a temperature and humidity that will assure uniform ageing; consequently the plaster is always uniform.

Pre-ageing lowers the water carrying capacity of the plaster; hence Aridize Plasters set into denser, stronger and more durable moulds.

Even when green, moulds made of these plasters possess

great strength, and breakage by handling and manipulation in the moulding and casting stage is diminished.

Characteristics

Aridize Moulding Plasters are made from selected gypsum ideal for the purpose and unequaled for whiteness and purity. This, together with the special patented process of manufacture, produces a particularly smooth working plaster of absolutely uniform setting quality.

These plasters are ground much finer than other similar products, assuring a more thorough solution and a finer surface to the finished work, with an absence of pinholes. The fine satin-like surface increases the life of the moulds.

In addition to these qualities, the plasters are cooler working and slower setting, which accounts for low expansion and absence of warped moulds. The slow generation of heat in setting insures protection to gelatine or glue moulds. Slow setting gives time for blending and working out trapped air bubbles and working the plaster into angles and corners of moulds.

Package

Shipped in 80-lb. and 100-lb. paper bags; 100-lb. jute and paper-lined cloth sacks and 250-lb. (230 lbs. net weight) barrels and in 320-lb. (300 lbs. net weight) barrels.

Specifications

See Master Specifications, page 16.

RED TOP PATCHING PLASTER

Use

Use for filling cracks and abrasions in plaster. Especially adapted to the repairing of old work preparatory to refinishing.

Description

Red Top Patching Plaster is the finest material obtainable for filling plaster cracks, breaks and crevices. It is white, uniform in quality, works easily, goes far and is quickly applied.

Characteristics

The set is regulated to permit ease in spreading and proper drying without shrinkage cracks. The plaster makes a hard, strong surface that withstands wear and tear and takes paint, calcimine, wall paper or Textone like a new wall, without discoloration. Red Top Patching Plaster mixes easily with clean water; nothing else is to be added.

Package

Supplied in convenient 2½-lb., 5-lb., 7½-lb. and 15-lb. packages, with a distinctive red top.

Specifications

Mixing—Pour the dry plaster on a clean, smooth board and form a central depression (bowl shape), into which pour clean water.

Thoroughly work the plaster into the water with a putty knife or semi-flexible scraping knife, adding water or plaster as required to produce the proper consistency.

Mix only in small batches that can be entirely used in 30 minutes. Do not retemper.

Application—Cracks shall be cut out to approximately ¼ in. in width. Abrasions shall be cleaned of all loose material.

Apply the patching plaster with a putty knife, semi-flexible scraping knife or small trowel as best adapted, using sufficient force to fill the crevice completely.

Smooth carefully, making the surface level with the surrounding surfaces.

After the patching plaster has set hard, smooth carefully with fine sandpaper.

MASTER SPECIFICATIONS

PREFACE

Specification Form

The form of this specification is that of a "Master" which includes all clauses which in ordinary practice apply to average work. All clauses, obviously, do not apply to every building. In formulating the "Interior Lathing and Plastering Specifications" for a particular building, only those clauses which apply should be selected for inclusion. Special provisions or methods but seldom required are not included—such clauses should be added wherever necessary to clearly define the procedure and especially to obviate controversy involving responsibility and cost.

Local Ordinances

Correlate these specifications with the requirements of Local Ordinances and Trade Customs relating to this division of the work.

Alterations and Additions

These specifications cover new work only. For additions and alterations add such clauses covering repairs and replacements and the joining of old and new work as may be required.

Advisory Service

The technical staff of the UNITED STATES GYPSUM COMPANY is at all times accessible for advice and recommendations in the formulating of the specification for Interior Lathing and Plastering. Special data, the result of much extended research work, relating to the selection and application of Interior Plastering and "Explanations of Job Conditions which Affect Plastering" will be furnished on request.

Notes

Notes in italics are explanatory or advisory only and should not be included in the specification.

Selective Words or Phrases

Wherever words or phrases occur in the body of the specification paragraph printed in italics and enclosed in parentheses, choose that word or phrase which applies to the particular work, omitting those that are irrelevant. Wherever the word "specify" occurs in italics enclosed in parentheses, thus (*specify*), add the particular word or clause applicable, optional with the specification writer.

INTERIOR LATHING AND PLASTERING

Note: For complete guaranteed and bonded plastering system see Standard X Plastering System, page 2.

Note: For exterior stucco, see Oriental Exterior Stucco, page 21.

Note: For Sabinite Acoustical Plaster, see SWEET'S Manufacturers' Index for the UNITED STATES GYPSUM COMPANY'S complete catalogue covering "Fireproof Sound Absorbents—Acoustical Treatment" and "U.S.G. System of Sound Insulation."

(1) General Conditions

The general conditions governing the General Contract apply to the work under this division.

Note: The American Institute of Architects' standard form of General Conditions is advocated.

(2) Work Included

(2a) The work included under this heading shall be the following:

- (2b) All metal suspended or furred ceilings.
- (2c) All metal stud partitions.
- (2d) All metal wall furring.
- (2e) All miscellaneous metal furring.
- (2f) All lathing.
- (2g) All plastering.

(3) General Scope

Note: List and locate either in schedules on plans or here portions of the building to be finished, the base to receive plaster and here include sufficient data to insure accuracy in estimates.

- (3a) The following require no plaster (*list and locate*).
- (3b) The following require but (*one (1)*) (*two (2)*) coats of plaster (*list and locate*).
- (3c) Ceilings noted as furred (*on plans*) (*in schedules*) are furred with (*metal*) (*gypsum board*) (*wood*).
- (3d) All supports for lath are spaced 16 in. on centers.
- (3e) All exterior walls are furred with (*specify*).

(3f) Exterior walls are not furred. Plaster shall be applied directly on the (*specify*).

(3g) Partitions are of (*specify*).

(3h) Walls back of finished tile work shall be lathed only. No plaster shall be applied.

(3i) Omit all plaster on interior masonry walls and (*hollow tile*) (*Pyrobar*) partitions back of marble work.

(3j) All exterior masonry walls, not furred, shall receive one coat of plaster back of marble work.

(3k) Omit the finish coat of plaster on all stud walls back of (*marble work*) (*blackboards*) (*specify*).

(3l) Omit the finish coat of plaster back of all (*wood wainscots*) (*specify*) and similar solid trim.

(3m) (*Specify*) shafts shall be plastered full height.

(3n) All chases in unfurred masonry walls which are to be plastered shall be lathed with metal lath. Lap the masonry at least 3 in. and secure at masonry joints. Wide chases (over 16 in.) shall be furred to receive lath.

(4) Scaffolding

(4a) This contractor shall provide and erect all scaffolding, staging, etc., necessary for the proper execution of his work.

(4b) He shall co-operate with other trades to the extent that erection of scaffolding shall not conflict with the execution of other work immediately preceding or carried on, without undue conflict, simultaneously with the lathing and plastering.

(4c) If, after due authority has been granted to erect scaffolding, it is necessary to remove parts thereof for the accommodation of others, demolition and re-erection shall be done only after allocation of cost, if any, has been equitably adjusted.

(5) Heat

(5a) Adequate temporary heat will be provided by others for the proper execution of work under this contract.

(5b) This contractor shall provide salamanders, fuel and attendance and shall maintain without fire hazard adequate heat for the proper execution of work under this contract.

(6) Closures

(6a) Provide temporary cloth closures for all exterior openings during plastering.

(6b) During the summer months exterior openings shall be screened to prevent plastering drying out before it has crystallized.

(7) Protection

(7a) Adequately protect from damage and plaster droppings all finish of the building.

(7b) Adequately protect the building with layers of heavy waterproof paper from damage by water at sources, gauging barrels and mixing boxes.

(8) Damage

Breakage of glass or other damage to the building or equipment through accident or carelessness incident to work under this contract shall be satisfactorily repaired or made good by replacement at this contractor's expense.

(9) Cleaning

(9a) At completion, remove all rubbish, plaster droppings, etc., and leave the building broom clean.

(9b) This contractor shall remove all plaster from glass and other finish and leave in the condition found.

(10) Cutting and Patching

After the erection of finish by others, this contractor shall, when called upon, cut out where required, patch and paint up all finished plaster work and leave the entire work in perfect condition.

(11) Sample Panels

This contractor shall furnish and erect, where directed for the approval of the architect, sample panels of one square yard area each, to illustrate each type of finish required under this contract.

The finished work shall equal in all respects the approved panels.

(12) Concrete Surfaces

Note: Concrete surfaces to receive plaster must not be smooth. Use rough form boards. Avoid dressed or oiled boards.

(12a) Concrete surfaces must be half green and free from dust, oils and efflorescence.

(12b) Burn off all oil or grease from the surface with a torch.

(12c) Remove efflorescence with a wire brush and wash with a one (1) to five (5) solution of muriatic acid and water. Thoroughly wash off acid with clean water.

(12d) Surfaces too smooth to receive plaster shall be thoroughly hacked.

(12e) Hacking will be done by others.

(13) Grounds

All lathing and plastering shall be laid to not less than the following grounds:

$\frac{3}{4}$ in. for $\frac{1}{4}$ in. gypsum lath, wood, wire or expanded metal lath; $\frac{7}{8}$ in. for $\frac{3}{8}$ in. gypsum lath; $\frac{5}{8}$ in. for brick or clay tile; $\frac{1}{2}$ in. for Pyrobar.

(14) Guaranty

(14a) This contractor shall guarantee all work and materials under this contract for a period of (*specify*) from the date of completion and acceptance.

(14b) Any defects attributable to faulty workmanship or material furnished under this contract shall be made good at this contractor's expense.

(14c) This shall include the cost of repairs or replacement of any decorating or other finish damaged by the defects.

(15) Workmanship

All work shall be executed by skilled workmen in a manner to satisfactorily fulfill the provisions of these specifications.

(16) Examination

(16a) All construction to receive lathing and plastering is presumed to be substantial, sound, level, plumb and true.

(16b) This contractor shall examine all construction, supports and base to receive lathing and plastering and shall report to the architect in writing any defects which will deleteriously affect work under this contract.

(16c) Failure to so report defects for correction or replacement prior to execution of the work under this contract will be construed as acceptance of the construction and shall not relieve the contractor from obligation under his guaranty.

(17) Materials and Mixing

(17a) **General**—Store all plaster at the site in a dry place, raised above the bare ground.

Provide clean, water-tight mixing boxes (approximately $3\frac{1}{2} \times 7$ ft. $\times$ 10 in. deep for base coats and $2\frac{1}{2} \times 4\frac{1}{2}$ ft. $\times$ 10 in. deep for finish coats) raised 4 in. at one end. Clean mixing boxes after each gauging.

Tools shall be kept clean. Do not rinse tools in gauging water.

Do not mix more material than can be applied in approximately one (1) hour.

Do not mix one gauging with another. Never retemper plaster after it has commenced to set.

All material except sand (*wood lath*) shall be as manufactured by the UNITED STATES GYPSUM COMPANY.

(17b) **Water**—Water shall be clean, free from alkali and impurities.

(17c) **Sand**—Sand shall be clean and sharp and free from organic matter with grains graded from fine to coarse, meeting fully the Standard Specifications for Plastering Sand of the American Society for Testing Materials. Screen through a 6-mesh screen.

(17d) **Metal Furring**—(*Specify sizes*) Red Top Cold Rolled Channels.

Note: See page 8.

(17e) **Metal Partition Studs**—(*Specify sizes*) Red Top Cold Rolled Channels.

Note: See page 8.

(17f) **Wood Lath**—No. 1 (*white pine*) (*cypress*) (*spruce*) free from knots, sap and bark.

(17g) **Gypsum Lath**—Rocklath $\frac{3}{8}$ in. thick, 16x32 in. and 16x48 in.

(17h) **Metal Lath**—(*Specify brand, material and finish*) lath; — lb. for horizontal positions and — lb. for vertical positions.

Note: See pages 8, 9 and 10. Select and specify weight for both horizontal and vertical positions.

(17i) **Cornerite**—Red Top or YPS Cornerite, 3x3x96 in. with special selvage edge.

Note: See pages 8 and 10.

(17j) **Corner Beads**—Red Top Corner Bead No. (*specify*).

Note: See page 8.

(17k) **Base Screeds**—Rep Top Base Screed No. (*specify*).

Note: See page 8.

(17l) **Metal Picture Mould**—Red Top Picture Mould No. (*specify*).

Note: See page 8.

(17m) **Metal Expansion Casings**—Red Top Expansion Casing No. (*specify*).

Note: See page 8.

(17n) **Base Plaster (Scratch and Brown Coats)**—

Note: Select type best adapted.

(17n1) (*Specify brand*), **Cement Plaster (Unsanded)**—

Note: See page 12.

(a) For scratch coat on gypsum lath, wood, wire and expanded metal lath, mix 2 parts by weight of dry sand with 1 part of plaster.

(b) For brick, Pyrobar gypsum tile, clay tile and second or brown coat, mix 3 parts by weight of dry sand with 1 part of plaster.

(c) Do not mix sand and plaster until ready to add water.

(d) First put in the mixing box a layer of sand, then one of plaster in raised end of box. Hoe dry from one end of box to other and then back again, working sand and plaster thoroughly together to a uniform color. Put water in other end of box; hoe plaster into the water, mixing thoroughly. Mix thin with water at first, then bring to the proper consistence for application by addition of properly proportioned dry sand and plaster.

(17n2) (Specify brand) Wood Fiber Plaster—

Note: See page 12.

(a) *Neat*—Put the plaster in upper end of mixing box and water in lower end. Hoe plaster into water and allow to soak from 10 to 20 minutes. Then mix to proper consistence for application.

Note: Used for wood lath and gypsum lath and scratch coat on wire and expanded metal lath. See "Application of Base Plaster," page 19.

(b) *Sanded*—Mix equal parts by weight of plaster and dry sand. Mix as specified above in (a).

Note: Used for brown coat on wire and expanded metal lath and for all plaster on brick, Pyrobar gypsum tile or clay tile.

(17n3) (Specify brand) Prepared Plaster (Sanded)—

Note: See page 12.

(a) Add nothing to the material but water.

(b) Put the plaster in upper end of mixing box and water in lower end. Hoe plaster into water, mixing thoroughly. Mix thin at first, then add sufficient dry material to bring to the proper consistence for application.

(17n4) Bondcrete (For All Concrete Surfaces)—

Note: See page 13.

(a) For both scratch and brown coats.

(b) Add nothing to the material but water.

(c) Put the plaster in the upper end of mixing box and water in lower end. Hoe plaster into water. Allow the material to soak at least 10 minutes. Mix thoroughly and break down the mix to a smooth, even creamy consistence.

(17o) Trowel Finish—

Note: Select type best adapted.

(17o1) Red Top Trowel Finish—

Note: See page 13.

Put the finish in the upper end of mixing box and water in the lower end (8 to 8½ gals. to the 80-lb. bag). No soaking is necessary. Mix thoroughly. Add more water if necessary to bring to a light, creamy consistency.

(17o2) (Specify brand) Prepared Gypsum Finish—

Note: See page 13.

Put the finish in the upper end of mixing box and water in lower end. Hoe plaster into water (using approximately 1 part of water to 2 parts of plaster measured by volume). Allow the material to soak and draw in the water without hoeing for at least 10 minutes. When the material has soaked and shows no further signs of air bubbles, mix thoroughly and, with particular care, break down the mix to a smooth, even, creamy consistence. Bring the mix finally to a very thin consistence. Transport in buckets.

(17o3) (Specify brand) Finishing Lime and (Specify brand) Gauging Plaster—

Note: See page 14.

(a1) (*Hydrated Lime*) Fill watertight box one-half to two-thirds full of clean water. Add dry lime gradually, preferably sifting through a ¼-in. mesh screen, until all water is dried up. Allow lime to soak overnight to develop full plasticity. Do not hoe or screen after soaking unless lime is dirty or lumpy.

(a2) (*Quick Lime*) Add water and lime gradually while mixing, constantly agitating the mixture to prevent burning of the unslaked portion. Mix to a thin consistency and screen. Run into ageing box.

(b) Mix 3 parts of lime putty by measure with 1 part of dry Gauging Plaster (equal to 2 parts of dry hydrated lime and 1 part of dry gauging plaster by weight). Mix thoroughly.

(17p) Sand Float Finish—

Note: Select type best adapted.

(17p1) (Specify brand) Prepared Gypsum Sand Float Finish—

Note: See page 13.

Put the finish in the upper end of mixing box and water in lower end. Hoe finish into water. Allow the material to soak and draw in the water without hoeing for at least 10 minutes. When the material has soaked and shows no further signs of air bubbles, mix thoroughly and, with particular care, break down the mix to a smooth, even, creamy consistency. Transport in buckets.

(17p2) (Specify brand) Sand Float Finish (Job Sanded)—

Note: See page 13.

Screen sand through a No. 12 screen. Mix dry to a uniform color 1 part of Cement Plaster to 1 part of dry sand by weight (equal to from 4 to 6 shovels of sand to each 100-lb. bag). Put dry mix in upper end of box and water in lower end. Hoe material into water and mix thoroughly to a smooth creamy consistence. Transport in buckets. Keep tools and box clean.

(17q) Oriental Interior (Colored Float or Texture Finish)—

Note: See page 13.

(17q1) Color(s) shall be (specify) as subsequently determined upon.

(17q2) Put the Oriental Interior in upper end of box and water in lower end. Hoe material into water, using approximately 1 part water to 2 parts Oriental Interior, by volume. Let Oriental Interior soak overnight (not over 24 hours). After soaking, mix thoroughly and carefully hoe the mix to a smooth, creamy consistence. Transport in buckets.

(17r) Red Top Keene's Cement—

Note: See page 15. Clauses below are for finish coats only.

(17r1) Add water only, mix thoroughly and bring to a working consistence.

(17r2) Add 1 pail of lime putty to each 100-lb. bag of Keene's Cement where extra plasticity is required.

(17s) (Specify brand) Aridize Moulding Plaster—

Note: See page 15.

(17s1) Add water only, mix thoroughly and bring to a working consistence.

(17s2) Add 50% lime putty to the moulding plaster where extra plasticity is required for run work.

(18) Furred or Suspended Ceilings

Where so indicated on plans (or listed in schedules) ceilings shall be furred or suspended with metal furring members.

Note: Describe construction. Apply to the United States Gypsum Company for specifications for metal lath and gypsum lath systems.

(19) Metal Stud Partitions

Where so indicated on plans, partitions shall be constructed of metal studding.

Note: Describe construction. Apply to United States Gypsum Company for specifications and details.

(20) Metal Wall Furring

Where so indicated on plans (or listed in schedules) exterior walls shall be furred with ¾-in. channels spaced (specify) on centers with flange to wall. Furring channels shall be secured to floors and ceilings in a substantial manner and shall be substantially secured to walls with special hook nails driven into the mortar joints. Provide rigid framing at all openings.

(21) Miscellaneous Metal Furring

Provide of ¾-in. channels, furring for all (false beams) (ornamental plaster cornices) (stair soffits) (specify), etc., as shown on the plans and as detailed. Furring shall be set (specify) on centers and rigidly secured to the building construction.

(22) Application of Wood Lath

(22a) All (*exterior stud walls*) (*wood furring*) (*interior stud partitions*) (*ceiling joists*) (*stair soffits*) (*specify*) shall be lathed with wood lath. Lath shall be spaced not less than $\frac{1}{4}$ -in. nor more than $\frac{3}{8}$ -in. apart and shall be secured to each bearing with standard wood shingle nails, two (2) to each end and one (1) to intermediate bearings.

Lathing shall break joints every eight laths, all put on horizontally. Under no circumstances shall lathing stop and form a long, straight, vertical joint nor be put on vertically to finish out at angles or corners; neither shall any lath run through and behind studding from one room to another. All corners must be made solid before lath is applied.

(22b) All re-entrant angles shall be reinforced over the wood lath with Cornerite. Strips shall butt (not lap) at ends and shall be substantially secured.

(23) Application of Red Top Rocklath

All (*exterior stud walls*) (*wood furring*) (*interior stud partitions*) (*ceiling joists*) (*stair soffits*) (*furred or suspended ceiling*) (*metal stud partitions*) (*specify*) shall be lathed with Red Top Rocklath.

(23a) Cutting shall be done by scoring with a sharp hatchet or knife and then breaking down and up over a straight edge.

Nails shall be $1\frac{1}{8}$ in., 13 gauge, $\frac{3}{8}$ -in. head, blued, long point, sterilized nails.

Red Top Rocklath boards shall butt with broken joints in each course. Stagger joints between walls and ceilings so the vertical joints on wall will not meet ceiling joints.

Fit Red Top Rocklath tight together at all re-entrant angles and corners. Cut accurately and fit Red Top Rocklath neatly around all electric outlet boxes, etc.

Space nails 4 in. apart at every support, nailing to center support first, then outer edges. Each nailing edge must have a firm bearing on studs, joists and furring. Drive nails home.

(23b) All re-entrant angles shall be reinforced over the Red Top Rocklath with Cornerite. Strips shall butt (not lap) at ends and shall be substantially secured.

(24) Application of Metal Lath

All (*exterior stud walls*) (*wood furring*) (*interior stud partitions*) (*ceiling joists*) (*stair soffits*) (*furred or suspended ceilings*) (*metal wall furring*) (*metal stud partitions*) (*miscellaneous metal furrings*) (*specify*) shall be lathed with metal lath.

Note: Complete specifications will be sent by the company on request.

(25) Corner Beads

All corners (*both vertical and horizontal*) shall be protected with corner beads for their full height (*or length*).

Note: If there are exceptions so note.

Corner beads shall be substantially secured, accurately set, plumb, true and straight.

(26) Metal Base Screeds

The following rooms shall have base screeds:

Note: List and locate either in schedules on plans or here.

Screeds shall be substantially secured, accurately set, straight and true to line and parallel with the finished floor line.

(27) Metal Picture Moulds

The following rooms shall have metal picture moulds:

Note: List and locate either in schedules on plans or here.

Picture moulds shall be substantially secured, accurately set, straight and true to line and parallel with the ceiling line.

(28) Metal Expansion Casings

The following openings shall have metal expansion casings:

Note: List and locate either in schedules on plans or here.

Expansion casings shall be accurately set in line with jambs

in accordance with details. Secure with screws and locking metal clips. Provide one-piece stamped casing miters.

(29) Application of Plaster—General

Keep plaster from freezing for 24 hours after application. Do not apply finish coat on a base coat which contains frost.

In hot, dry weather screen all openings while plastering to prevent material drying out before it has set. If plaster should dry out (showing soft, white spots or areas) sprinkle those portions so affected with clean water from a spray pump or a brush.

After plastering has set, open the windows and permit the wall to dry out as quickly as possible. Use judgment in procedure during freezing weather.

For grounds see "Grounds," page 23. Unless specially otherwise noted, all plaster shall be applied in three (3) coats—scratch, brown and finish. Scratch coat shall be applied and the surface well scratched. When scratch coat is set and nearly dry, follow with brown coat. Brown coat shall be brought to a true level plane with rod and darby flush with the grounds, ready to receive finish coat. Angles and corners shall be left straight, true and plumb.

(30) Application of Base Plaster (Scratch and Brown Coats)**(30a) Cement Plaster and Prepared Plaster—**

(30a1) **On Wood Lath**—Soak lath thoroughly the day before and again an hour or so before applying the plaster. Apply in two (2) coats, scratch and brown, the scratch with sufficient pressure to obtain a good key. Darby the brown coat lightly, and use water sparingly.

(30a2) **On Gypsum Lath**—Do not wet lath. Apply in two (2) coats, scratch and brown. Scratch coat shall be well scratched in to fill all interstices between lath boards. Darby brown coat lightly and use water sparingly.

(30a3) **On Wire or Expanded Metal Lath**—Apply in two (2) coats, scratch and brown. Scratch coat shall be applied lightly covering the lath and filling meshes. Darby brown coat lightly and use water sparingly.

(30a4) **On Brick, Pyrobar Gypsum Tile, or Clay Tile**—(Soak brick or tile walls thoroughly.) (If necessary, sprinkle Pyrobar lightly to reduce suction.) Apply in two (2) coats, scratch and brown, and fill out to grounds. Darby lightly and use water sparingly.

(30b) Wood Fiber Plaster—

Note: Neat Wood Fiber Plaster may be troweled down to a smooth finish omitting further finish coat. If desired, so specify.

(30b1) **On Wood Lath**—Soak lath thoroughly the day before and again an hour or so before applying the plaster. Apply scratch coat with sufficient pressure to obtain a good key. Rake or scratch the surface. Apply brown coat using sufficient material to fill out to the grounds.

Before the plaster begins to set, broom the surface to receive the finish coat.

(30b2) **On Gypsum Lath**—Do not wet lath. Apply in two (2) coats, scratch and brown. Scratch coat shall be well scratched in to fill all interstices between lath boards. Before the plaster begins to set, broom the surface to receive the finish coat.

(30b3) **On Wire or Expanded Metal Lath**—Apply in two (2) coats, scratch and brown. Scratch coat shall be applied a little stiff, covering the lath and filling meshes. Brown coat shall be applied to fill out to the grounds. Before the plaster begins to set, broom the surface to receive the finish coat.

(30b4) **On Brick, Pyrobar Gypsum Tile or Clay Tile**—(Except over dampproof paint.) (Soak brick or tile walls thoroughly.) (If necessary, sprinkle Pyrobar lightly to reduce suction.) Apply in two (2) coats, scratch and brown, and fill out to the grounds. Before the plaster begins to set, broom the surface to receive the finish coat.

(30c) Bondcrete (For All Concrete Surfaces)—

Note: See paragraph 12, page 17.

Note: Bondcrete may be troweled down to a smooth finish omitting further finish coat. If desired, so specify.

Apply in two (2) coats, scratch and brown, and fill out to grounds. Before the plaster begins to set, broom the surface to receive the finish coat.

(31) Application of Trowel Finish

(31a) Location—The following shall receive trowel finish:

Note: List and locate either in schedules on plans or here.

(31b) Prepared Gypsum Finish—

Base coat must be half green before finish is applied. If suction is too great, sprinkle lightly with clean water from a clean brush.

Apply in three (3) coats. The first time over, put on sufficient material to cover the surface completely, using material as thin as possible and grinding it thoroughly into the base coat. Allow this to draw a few moments to avoid blistering.

The second time over, lay the material on perfectly level.

The third time, make the material as thin as can be handled on the hawk and fill in cat faces and imperfections. After it has drawn a few moments, trowel to a smooth surface, applying water with a damp brush. Do not drench with water (drenching will kill the face of the material). Work top and bottom of the wall at the same time to avoid joinings.

(31c) Red Top Trowel Finish or Lime and Gauging Plaster—

Apply over dry walls, using more water if the walls are bone dry. Scratch in a thin coat, then go over a second time filling imperfections and cat faces. Trowel to a smooth finish applying water with a damp brush. Troweling should be completed before the finish has set. In cold, damp weather, provide heat and ventilation until the finish is dry.

(32) Application of Sand Float Finish

(32a) Location—The following shall receive sand float finish:

Note: List and locate either in schedules on plans or here.

(32b) Prepared Sand Float Finish or Cement Plaster Sanded—

Apply sand float finish after base coat has set firm and hard, but while still green—within twelve hours after base coat has been applied.

Lay on with a trowel and then use a (*cork*) (*carpet*) or (*felt*) float, working the material to a true, even surface, free from float marks and cat faces.

Note: Cork float preferred.

Use as little water as possible while working, so as to avoid killing the surface. Use damp brush only. Do not attempt to work after the material begins to or has set.

Work top and bottom of the wall at the same time to avoid joinings.

(33) Application of Oriental Interior (Colored Finish Coat)

(33a) Location—The following shall receive Oriental Interior Finish:

Note: List and locate either in schedules on plans or here.

(33b) General—Brown coat should be broomed or left rough under darby to insure a good bond. Remove all loose or projecting particles from base coat which may show through finish coat.

The base coat must be set firm and hard before the application of Oriental Interior. *On all types of masonry construction, such as gypsum tile, clay tile, etc., the base coat must be thoroughly dry.* On other types of lathing base, such as plaster board, wood or metal lath, Oriental Interior may be applied after the base coat is 90% dry. If the suction in the base coat is too great to permit ease of application, wet down lightly and uniformly with clean water.

To avoid cutting re-entrant angles, use a trowel with edges rounded to a curve approximately the circumference of a dime.

Use as little water as possible while working, so as to avoid killing the surface. Use damp brush only. Do not attempt to work material after it begins to or has set.

Work top and bottom of the wall at the same time to avoid joinings.

(33c) Float Finish—Apply in two (2) coats. First apply a thin coat, grinding this into base, thoroughly covering the surface, and allow to draw a few moments. The second time over lay the material on perfectly level and then use a (*cork*) (*carpet*) or (*felt*) float, working the material to a true, even surface, free from float marks and cat faces.

(33d) Texture Finish—Apply in two (2) coats. First apply a thin coat, grinding this into base, thoroughly covering the surface, and allow to draw a few moments. The second time over, lay the material on perfectly level, working it into the desired texture.

Proper drying conditions must be maintained in order to protect the color. During the late fall, winter and early spring months, the slow-drying periods of the year, artificial heat and proper ventilation must be arranged for. Failure to provide this protection may result in color difficulties.

Note: The UNITED STATES GYPSUM COMPANY will furnish on application a Special Bulletin covering the execution of textured finishes.

(33e) Tile or Masonry Effects—Mark off with a straight-edge while the material is "green"—preferably from 4 to 5 hours after application. Units shall be rectangular and joints shall be clean cut and even.

(34) Application of Keene's Cement Finish

(34a) Location—The following shall receive Keene's Cement Finish:

Note: List and locate either in schedules on plans or here.

(34b) General—

Note: Specify same as (31c) in opposite column.

(34c) Marble Panels—Keene's Cement wainscots shall be divided into even vertical panels with V-joints while the material is "green"—preferably from 4 to 5 hours after application. First rake out plaster base at joints for a depth of $\frac{1}{4}$ and $\frac{1}{2}$ in. wide, laid to a straightedge, plumb and true—clean of loose particles. Apply Keene's Cement as above and form clean cut, even vertical V-joints at panel divisions.

(34d) Tile Effects—

Note: Specify same as Oriental Interior—Tile Effect.

(34e) Polished Surfaces—After the cement is dry, polish with a cloth to a highly polished surface.

(35) Ornamental Work

(35a) Location—The following rooms require ornamental plaster in accordance with details.

Note: List and locate either in schedules on plans or here.

(35b) Models—

(35b1) All ornamental work shall be executed from models.

(35b2) Models shall be furnished at the contractor's expense for all ornamental work. These shall be made by a skilled modeler (*selected*) (*approved*) by the architect, preferably in (*name place*) so that they may be under the direct supervision of the architect while being prepared. Models must be submitted for approval while in the clay.

(35b3) The contractor shall allow the sum of (*specify*) to cover the cost of models prepared under the direction of the architects, delivered f.o.b. cars (*specify*).

(35b4) The owner will furnish, without cost to the contractor, models prepared under the direction of the architect, delivered f.o.b. cars (*specify*).

(35c) General—

(35c1) All curved work shall be (*run*) or (*cast*) to true radial lines.

(35c2) Leave all ornamental plaster work in perfect condition for decorating, true and smooth, with surfaces and intersections rubbed down with fine sandpaper, if necessary.

(35d) Run Work—All run work shall be executed in gauged Moulding Plaster.

Furnish clean cut, accurate templates made in strict accordance with the architect's (*full size*) details.

Run all mouldings straight and true with perfect arrises and miters.

(35e) Cast Work—All cast work shall be executed in Moulding Plaster.

Ornamental work shall be cast hollow or solid as best suited to conditions, thoroughly strengthened with fiber and braced where necessary.

All cast work shall be set accurately—true, plumb and straight.

If necessary, members shall be substantially fastened around furring; where nails are used, they shall be galvanized.

ORIENTAL EXTERIOR STUCCO

(Base Coats and Colored Finish Coat)

Description

Oriental Exterior Stucco is a completely factory-mixed exterior stucco material of the highest quality. The finish coat is scientifically colored in a wide range of tints. It is the product of careful and thorough investigation and research by the UNITED STATES GYPSUM COMPANY.

The chief limitation of stucco heretofore has been the difficulty of producing the desired texture and color to harmonize with the architectural design when the color has to be mixed in on the job, or of matching a certain color when the batches are mixed at different times or under different conditions.

Oriental Exterior Stucco is scientifically compounded and is water-resistive, non-staining, plastic, easy to apply, and permanent. Its use eliminates much of the uncertainty and defects inherent in both quality and appearance in the usual job-mixed stucco work.

Bases—Oriental Exterior Stucco may be applied over steel fabric, metal lath, wire lath, tile, brick or concrete. It is particularly adapted to use over Gyplap wall construction (see page 31). It is also adaptable for overcoating old cement stucco walls, masonry surfaces and walls of frame buildings.

Oriental Exterior Stucco contains no ingredient that will in any way weaken or corrode steel reinforcement.

Base Coat—Oriental Exterior Stucco Base Coat is a specially prepared, factory-mixed, permanent, water-resistive base for Oriental Exterior Stucco Finish, with the correct proportion of uniformly graded, selected sand, and other ingredients added to make it plastic.

Factory mixing prevents oversanding or improper proportioning of other ingredients on the job. Its uniformity assures perfect joinings of various mixes that will not show through the delicate coloring of the finish coat.

Being made ready for use by the addition of water only, it is economical of time and labor and assures a base of uniform suction and strength.

Finish Coat—Oriental Exterior Stucco Finish is mixed with mineral colors and prepared ingredients that make it water-resistive. The formula used is based upon methods used in producing the famous Old World stuccoes and one successfully used in America for 20 years.

Oriental Exterior Stucco Finish is furnished in white and eleven standard colors. All ingredients, including the mineral colors, are weighed and the charge thoroughly machine mixed.

Water only needs to be added at the job. A uniform color and correct mixture are thus assured, entirely eliminating the unavoidable variations which occur when stucco is hand-mixed on the job.

Characteristics

Oriental Exterior Finish sets slowly enough to permit proper finishing, thus avoiding unsightly streaks or shading.

Proper manipulation by the workman will produce in Oriental Exterior Stucco the beautiful texture and color effects that mark the finest of both Old World and modern stucco work. Besides the period textures, it is easy to achieve the smooth trowel, stipple, sponge, rough cast or spatter-dash finishes.

Oriental Stucco Finish increases in hardness, strength and water resistive qualities with age.

Use

Use for base and finish coats of exterior white or colored stucco of the highest quality.

Note: Oriental Exterior Stucco Finish may be applied over standard portland cement base coats.

Package

Oriental Exterior Base Coat is shipped in 80-lb. paper bags, and Oriental Exterior Finish Coat is shipped in 100-lb. paper bags. Order Finish Coat by the number on color cards or samples.

Covering Capacity

Note: See "Covering Capacity," page 11.

Base Coat—The approximate covering capacity of one ton of Oriental Exterior Stucco Base Coat (scratch and brown coats) on the basis of the average job, is as follows:

Plastering surface	Brick and clay tile	Metal lath	Wire fabric	Cement and cinder tile	Concrete
Sq. yd. per ton	20 to 25	20 to 22	20 to 25	20 to 22	20 to 25

Finish Coat—One ton of Oriental Exterior Stucco Finish, not to exceed $\frac{1}{4}$ in. in thickness, will cover from 150 to 200 sq. yds., depending on the texture selected.

ORIENTAL EXTERIOR STUCCO—SPECIFICATIONS

Note: Notes are explanatory or advisory only and should not be included in the specifications.

(1) Work Included

The following surfaces shall be finished with Oriental Exterior Stucco:

Note: Here list and locate all work included under this contract, together with the description of texture and color selected. If more than one texture or color is used on the work, list, locate and describe separately.

(2) Examination

This contractor shall examine all base surfaces to receive stucco and shall report to the architect in writing any defects which will detrimentally affect the work under this contract. Commencement of work under this contract, without such notice, will be construed as acceptance of the base surfaces, and full responsibility for the perfect final condition of the finished work.

(3) Sample Panels

The contractor shall furnish on the site, where directed, three (3) sample panels one (1) square yard in area for the approval of the architect. Panels shall be executed on the base specified and in accordance with the architect's selection of textures and colors. The stucco work shall be finished in accordance with the approved panel or panels.

(4) General

All materials shall be as manufactured by the UNITED STATES GYPSUM COMPANY. All work shall be performed by skilled workmen.

(5) Materials

(5a) **Red Top Expanded Metal Stucco Mesh**— $1\frac{1}{2}$ -in. mesh, painted; weight (1.8) (3.6) lb. per sq. yd. Nails shall be special self-furring nails.

(5b) **Woven Wire**—Electrically welded, 2-in. mesh fabric of No. 14 gauge cold drawn steel wire, thoroughly galvanized and crimped for self-furring. Nails shall be special No. 10 $\frac{1}{2}$ gauge, $1\frac{3}{4}$ in. long.

Note: Furnished 48 in. wide, 112 $\frac{1}{2}$ ft. long containing 50 sq. yds., especially for use over Gyplap sheathing. See page 31. It is equally adaptable for use over wood sheathing.

Note: Select either expanded metal or steel wire mesh for frame construction as desired.

(5c) **Base Coat**—Oriental Exterior Stucco Base Coat.

(5d) **Finish Coat**—Oriental Exterior Stucco Finish, color No. (specify).

(6) Lathing

Note: Include only for frame construction.

(6a) **Expanded Metal**—Apply the expanded metal across the studs. Secure with self-furring nails in accordance with the manufacturer's directions approximately 6 in. apart on studs.

Lap pieces of expanded metal 1 in. Carry metal around all corners to the first support. Thoroughly secure the metal at all openings.

(6b) **Woven Wire**—Apply reinforcement across the studs with the crimps against the (Gyplap) (Sheathing). Nails 6 in. apart on studs. Lay pieces of reinforcement at all sides and ends so that cross-wires lap 1 in. Vertical joints shall be broken and shall come at supports. Carry reinforcement around all corners to the first support. An extra piece of reinforcement shall be nailed diagonally across corners of all openings.

(7) Mixing and Application of Stucco

(7a) General—

(1) Use a clean, tight mixing box, about 3½x7 ft., raised about 4 in. at one end. Mix with a hoe. Clean the mixing box after each gauging.

(2) Use only clean water, free from alkali and impurities; keep tools clean. Do not rinse tools in gauging water.

(3) Do not mix more material than can be applied in about one hour.

(4) Do not mix one gauging with another and do not retemper stucco after it has commenced to set.

(5) Do not apply during freezing, cold or wet weather, nor when rainstorms threaten.

Note: Freezing will cause disintegration as well as color

difficulty. Slow or sluggish drying or a rainstorm before hardening takes place, generally results in cloudy effects and color distortion. Careful treatment of this phase of stucco work is the greatest guarantee of uniformity in color. The material should not be applied to greasy surfaces. Integral waterproofing or anti-freeze solutions should not be used.

(6) Keep stucco in a dry place. Do not store on the bare ground.

(7b) **Base Coats**—Add only clean water to Oriental Exterior Stucco Base Coat and mix to the proper consistency. Apply in two coats. The first coat shall be not less than ½ in. thick, scratched. After the first or scratch coat has thoroughly set but not dried, apply the second coat not less than ⅝ in. thick properly rodged and floated to a true plane. Rake or thoroughly scratch each coat to provide a key for the succeeding coat.

(7c) **Finish Coat**—Add only clean water to Oriental Exterior Stucco Finish and mix to the proper consistency. Allow finish coat to soak from 20 to 30 minutes. After the second base coat is completely dry, spray wall sufficiently to cut suction and apply finish coat not less than ⅜ in. or more than ¼ in. thick, as required for the finish selected.

The finish shall be:

Note: Here specify or describe the finish selected. U.S.G. Bulletin OS-3 describes in detail the methods used to obtain various textures.

SHEETROCK—THE FIREPROOF WALLBOARD

Description

Sheetrock is a fireproof wallboard. It is made of gypsum, moulded while in a plastic condition between two sheets of tough protective paper. In the finished product the gypsum has recrystallized and the board is strong, lasting, tough, durable and slightly flexible. The long edges are reinforced and protected by the same material with which the board is sheathed. These patented edges are square, uniform and true. The Sheetrock Reinforced Joint System described on next page provides a uniform, strong, jointless surface ideal for any finish.

The following are recent developments in the New Improved Sheetrock.

A New Surface—New Improved Sheetrock has a close-grained, highly calendered surface of ivory color. It is tough and highly resistant to scuffing and abrasion. Light colored paints retain their original freshness and clarity. All paints spread farther.

The Improved Core—The new cellular structure makes New Improved Sheetrock more insulating. It also increases flexibility, reducing the chance of breakage in transport, handling and application. The gypsum at the ends is specially hardened.

Improved Nailing Edges—Nailing edges on the New Improved Sheetrock are square and uniformly thick. The paper enveloping the core has been chamfered so that the reinforced edges are of precisely the same thickness as the rest of the board, thus eliminating bowing in the piles. Panels join evenly and smoothly.

New Marking—On the back of each panel will be found a distinctive marking. This new marking will be recognized immediately as the sign of the New Improved Sheetrock.

Sizes

Sheetrock is made ⅝ in. thick; 32 and 48 in. wide and 4, 5, 6, 7, 8, 8½, 9 and 10 ft. long. The widths fit standard 16-in. centering of studding and joists and the lengths readily adapt it to average ceiling heights.

Sheetrock is also made ¼ in. thick and 6, 7, 8, 9 and 10 ft. long. Be sure to specify the thickness desired.



U.S.G. Patented Reinforced Edges Provide Extra Nailing Strength and Insure Tight, Flush Joints

Advantages

Fireproof—Does not burn or readily transmit heat. It interposes a continuous fireproof sheet of substantial thickness over the wood frame construction.

Permanent—Does not disintegrate.

No Expansion or Contraction—Does not warp, shrink or crack, because it is unaffected by climatic conditions.

Substantial Thickness—⅝ in., almost twice as thick as ordinary fiber wallboard.

Strong Close Longitudinal Joints—The boards fit close and even. The tough paper covering of Sheetrock is folded square over the longitudinal edges, forming a patented feature which insures an extra strong nailing edge and tight, flush joints. When finished with Sheetrock Reinforced Joint System (see bottom of page 29), the joints are permanently hidden and are not apparent even under wallpaper.

Sound and Heat Insulation—Its greater thickness and permanently tight joints increase its insulating qualities materially over those of ordinary wallboard.

It is a non-conductor of sound to a surprising degree.

Easy to Install—It is sufficiently light in weight for easy, rapid handling. The tough sheets can be sawed and nailed like lumber.

Use

Because Sheetrock possesses so many high grade, practical features, it has a correspondingly wide field of usefulness.

Use for walls and ceilings in buildings of all types; building new rooms in old buildings; lining garages and attics; fireproofing over heating plants; factory dry rooms; exhibition booths; walls and ceilings of remodeling work. It is particularly adapted to office partition work in existing buildings, since it eliminates the time and dirt of plastering.

Sheetrock walls, particularly when finished with Metal "A" Joint System or Sheetrock Reinforced Joint System, take all types of painting and decorating, including wall paper.

Textone, the Plastic Paint described on page 37, is a particularly desirable decorative medium for Sheetrock.

SHEETROCK REINFORCED JOINT SYSTEMS

The UNITED STATES GYPSUM COMPANY has developed two new systems of joint reinforcement, which add permanent joint concealment to the other advantages of Sheetrock. The joinings between the boards are "laced" by reinforcing (either the new Metal "A" System or the Fabric System) embedded in a perfected joint cement of unusual strength and adhesiveness. Sheetrock is applied as illustrated on page 23. This assures permanent concealment of board joinings and lessens the possibility of joint cracks showing through the decoration.

The Metal "A" System of reinforcing consists of a perforated metal tape packed in a box containing 250 lin. ft. 1½ in. wide with 15 lbs. of joint cement which is sufficient to treat the joints on 500 sq. ft. of board surface.

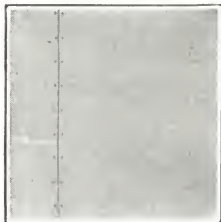
The Fabric System of reinforcing consists of a specially

woven and processed cloth fabric, packed as above described for Metal "A" System, except the bag contains 10 lbs. of cement.

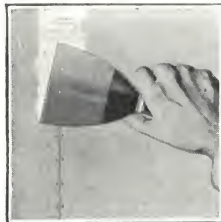
The Metal "A" System is somewhat more expensive, but is preferable. Select the system desired.

Sheetrock Finisher is a specially prepared material, far superior to so-called joint fillers, with none of the disadvantages of the old type of plaster filler. When mixed with water, Sheetrock Finisher forms a cement, which is easily, quickly and economically applied with a semiflexible scraping knife. It is used to conceal joints, spot nailheads and repair surface abrasions. Supplied in 5- 10- and 25-lb. packages. 5 lb. should finish joints and cover nailheads for 500 sq. ft. of Sheetrock.

APPLICATION OF SHEETROCK REINFORCED JOINT SYSTEM



Sheetrock Joint Before Reinforcing



"Buttering"—Working the Cement Into the Joint



Putting Metal "A" or Cloth Fabric Reinforcing in Place



Forcing Cement Through Metal "A" or Fabric and Leveling Surface

SHEETROCK SPECIFICATION—SHORT FORM

(1) Work Included

Note: List and locate all walls and ceilings to be covered with Sheetrock.

(2) Framing

All studding and joists shall be spaced 16 in. on center. Provide 2x4-in. headers on ceilings to take all end joints of Sheetrock and where required to form nailing base for wood beams, cornices, etc. Cut in 2x4-in. headers on walls to form substantial nailing for baseboards, wainscot caps and similar interior woodwork trim.

(3) Materials

(3a) Wallboard— $\frac{3}{8}$ -in. Sheetrock as manufactured by the UNITED STATES GYPSUM COMPANY.

(3b) Nails—3d cement coated common nails (flat head) $1\frac{1}{8}$ in. long.

Note: On buildings of two or more stories with a floor above Sheetrock ceiling, use 4d nails.

(4) Application

Apply Sheetrock direct to framing as per directions of the UNITED STATES GYPSUM COMPANY, manufacturer.

Note: Specify joint system desired. Do not use plaster paris or ordinary joint filler.

(5) Decoration

Note: Specify type of decoration, to be applied according to the directions of the manufacturer of Sheetrock.

SHEETROCK TILE BOARD

Description

Sheetrock Tile Board is a fireproof, gypsum wallboard made to obtain conveniently and at low cost, beautiful tiled-wall effects.

Sheetrock Tile Board is a perfected product that makes possible lacquered and enameled surfaces that resemble the best ceramic tile in any shade of color desired, thus enabling the decorator to obtain complete color harmony.

After Sheetrock Tile Board has been erected and decorated, it can be washed clean when soiled.

The surfacing of Sheetrock Tile Board is of heavy fiber, which has a distinctive cream color, especially adapted for decorating.

Sizes

Sheetrock Tile Board is made in panels $\frac{3}{8}$ in. thick, 48 in. wide and 6, 7, 8, 9 and 10 ft. long. The tile impressions are $4\frac{1}{4} \times 4\frac{1}{4}$ in., a standard size for built-in fixtures. There is a selvage or trimming edge on each panel end outside the tile pattern. The panels are

packed two in a bundle, with the tile face inside and edges reinforced.

Advantages

Because it is made from gypsum, Sheetrock Tile Board does not burn. Neither does it warp or buckle, nor does it harbor vermin, and, though it is made from gypsum rock, it is light enough for convenient erection and can be nailed, sawed and fitted with the ease of wood.

The material has all the advantages inherent in Sheetrock. See page 22.

Use

Use for tiled-wall effect in bathrooms, kitchens, lavatories, lunchrooms, dairies, doctors' offices, restaurants, delicatessens and barber shops.

Erection and Decorating

Complete directions for erection and decorating of Sheetrock Tile Board are on the back of each panel.

GYPLAP—FIREPROOF SHEATHING

Description

Gyplap is a solid sheet of gypsum encased in a tough fibrous covering, the outer surface of which is moistureproof. Its uniformity and strength make it an ideal material for sheathing on frame structures under siding, stucco and brick veneer. It also makes an excellent fire stop between floors.

Gyplap has the U.S.G. patented reinforced folded edge, which gives maximum strength. The large units, spanning across several studs, have been found by tests to support the building better than does wood sheathing laid horizontally.

Gyplap has an interlocking joint, and, as the sheets do not

warp and separate at the joints, the wall is wind-tight. The use of building paper is unnecessary.

The material saws and nails as easily as lumber, and, because of the rapidity with which the large units can be applied and the elimination of building paper, this fireproof sheathing costs but little, if any, more than wood sheathing in the completed job.

Sizes

Gyplap is $\frac{1}{2}$ in. thick, 24 in. wide, 6 ft. 8 in. and 8 ft. long.

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